County Council of Shropshire.

REPORT

BY THE

COUNTY MEDICAL OFFICER OF HEALTH

ON THE

VITAL STATISTICS AND SANITARY CONDITION OF SHROPSHIRE DURING THE YEAR 1904,

INCLUDING A

SUMMARY OF THE ANNUAL REPORTS OF THE DISTRICT MEDICAL OFFICERS OF HEALTH, AND A REPORT ON THE ADMINISTRATION OF THE MIDWIVES ACT.

JAMES WHEATLEY, M.D., D.P.H.

SHREWSBURY,

June 24th, 1905.

TO THE CHAIRMAN AND MEMBERS OF THE SANITARY COMMITTEE OF THE SHROPSHIRE COUNTY COUNCIL.

Gentlemen,

I have the honour to present my Annual Report for 1904.

The general arrangement of previous reports has been continued in the present one. The second part of the report is a condensed summary of the reports for the various districts. In the first part each subject is dealt with as affecting the whole County.

A short report is given on the administration of the Midwives Act.

I am, Gentlemen,
Your obedient Servant,
JAMES WHEATLEY.

County Health Office,
Talbot Chambers,
June 24th, 1905.

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PART 1.

THE ADMINISTRATIVE COUNTY.

POPULATION.

The population for the whole Administrative County was in 1891 236,827, and in 1901, 239,783. In 1901 the total population of the urban and rural districts, containing a small part of Staffordshire, was 240,606 and it is estimated to be 241,604 in the middle of 1904. This is the population on which the county rates are calculated.

The populations on which the district rates are calculated are those estimated from local knowledge by the Medical Officers of Health. In some of the districts corrections of the population have been made on account of the public institutions.

The population of the Registration County is estimated at the middle of 1904 to be 260,772. It includes certain small portions of the administrative counties of Chester, Flint, Denbigh, Montgomery, Hereford, Worcester and Stafford. It does not, however, include certain portions of the Administrative County of Salop which are situated in the Registration Counties of Montgomery, Radnor, Worcester, and Stafford.

The registration county is the area used by the Registrar-General for his mortality statistics relating to this county. It is also the area used by the Local Government Board for the vaccination statistics.

In this report the statistics refer to the Administrative County unless stated otherwise.

Table 1.

POPULATION &C., IN URBAN AND RURAL DISTRICTS.

URBAN DISTRICTS.	Inhabited houses.			Population.				
	1891	1901	Average No of persons to each house	1891	1901			Percentage, Increase or Decrease between 1891 & 1901.
					Males.	Females	Total.	
Bishop's Castle ..	361	354	3.9	1586	666	712	1378	— 13.1
Bridgnorth ..	1215	1300	4.6	5865	2791	3261	6052	+ 3.2
Church Stretton ..	131	147	5.5	770	399	417	816	+ 5.9
Dawley	1523	1633	4.6	6996	3940	3582	7522	+ 7.5
Ellesmere ..	392	425	4.5	1830	868	1077	1945	+ 6.2
*Ludlow	959	1372	4.6	4460	3065	3308	6373	+ 2.0*
Newport ..	714	720	4.5	3403	1518	1723	3241	— 4.7
Oakengates ..	2117	2187	4.9	10680	5739	5167	10906	+ 2.0
Oswestry	1778	2083	4.6	8496	4507	5072	9579	+ 12.7
Shrewsbury ..	5600	6065	4.6	26967	13423	14972	28395	+ 5.3
‡Wellington ..	1284	1327	4.7	5909	3049	3234	6283	+ 6.3
Wem	406	453	4.7	1878	987	1162	2149	+ 14.4
Wenlock	3447	3568	4.4	15703	7998	7868	15866	+ 1.0
Whitchurch ..	1006	1129	4.6	4930	2476	2745	5221	+ 5.9
All Urban Districts	20933	22763	4.5	99473	51426	54300	105726	+ 4.4*

RURAL DISTRICTS.	Inhabited houses.			Population.				
	1891	1901	Average No of persons to each house	1891	1901			Percentage, Increase or Decrease between 1891 & 1901.
					Males.	Females	Total.	
Atcham	4264	4329	4.8	21144	10314	10581	20895	— 1.1
Bridgnorth ..	1934	1886	4.5	9185	4200	4373	8573	— 6.6
Burford	277	263	4.6	1361	600	633	1233	— 9.4
Chirbury ..	899	812	4.3	4084	1796	1743	3539	— 13.3
Church Stretton ..	1019	1005	4.4	4631	2242	2237	4479	— 3.3
Cleobury Mortimer	1251	1292	5.2	5911	3717	3003	6720	+ 13.6
Clun	1585	1487	4.5	7459	3429	3395	6824	— 8.5
Drayton	2613	2655	4.4	11969	5703	6005	11708	— 2.1
Ellesmere ..	1649	1658	4.7	8119	3963	3945	7911	— 2.5
*Ludlow	2242	2003	4.7	10863	4904	4681	9585	+ 5.0*
Newport	1302	1284	4.7	6327	3071	2962	6033	— 4.6
Oswestry	3213	3220	4.5	15107	7357	7370	14727	— 2.5
†Shifnal	1923	1918	4.6	9120	4335	4509	8844	— 3.0
Teme	388	388	4.7	1870	970	876	1846	— 1.3
‡Wellington ..	2271	2499	4.7	10780	6000	5773	11773	+ 9.2
Wem	1801	1840	4.4	8241	4119	4147	8266	+ 0.3
Whitchurch ..	423	424	4.5	2031	956	968	1924	— 5.2
*All Rural Districts	29054	29063	4.6	138202	67676	67204	134880	— 1.08*

* The 1901 figures for Ludlow Borough include the additions made in November, 1901, and the same numbers have been deducted from the Ludlow Rural District, viz., 385 inhabited houses, 894 males and 927 females. The percentage increase or decrease has been calculated without these additions.

† This district (Shifnal) includes 184 inhabited houses, 427 males and 396 females in the administrative County of Stafford.

‡ The population of the added part of Wellington, about 827, has not been transferred in this table from the Rural to the Urban District.

Table 2.

POPULATION IN AGE PERIODS.

	URBAN DISTRICTS.		RURAL DISTRICTS.	
Age period.	Total.	Percentage. at each age period.	Total.	Percentage at each age period.
Under 1	2462	2.4	2965	2.2
1—5	9255	8.9	12171	8.9
5—10	11094	10.7	15176	11.2
10—15	10818	10.4	14275	10.5
15—25	19671	18.9	22940	16.9
25—35	15508	14.9	18610	13.7
35—45	12132	11.7	16007	11.8
45—55	9337	9.0	12743	9.4
55—65	7234	7.0	10719	7.9
65—75	4522	6.1	7033	7.6
75—85	1680		2859	
85—95	189		373	
95 and upwards.	3		7	
	103905		135878	

As previously pointed out, Table 2 shows that the percentage of persons between the age of 15 and 35 in urban districts is considerably in excess of that in rural districts.

This difference in the distribution of the population necessarily influences the death-rates apart from any consideration of health conditions. In order to compare one district with another, or one district with the whole county, it is necessary to prepare factors of correction which remove the disturbing influence due to unequal distribution of age and sex. The factor for correcting the rates of the Registration County of Salop is .8654, that for the Administrative County is .8918, that for the combined Urban Districts is .9353, and that for the combined Rural Districts is .8622.

These figures have been applied to Table 4 in order to correct the crude death-rates. It will be seen by reference to this Table that the corrected rates are very considerably lower, especially in the rural districts, than the crude rates.

In order to have quite comparable figures, factors of correction should be worked out for each disease. Disease rates in this county thus corrected would, as a rule, be lower than the crude rates, especially in the rural districts, and this is very markedly so in the case of cancer. On the contrary the phthisis rate in the rural districts would be slightly increased by the correction.

MARRIAGES.

The number of marriages in the Registration County for 1904 was 1,723, giving a rate of 13.2, compared with 13.4 in 1903, 14.2 in 1902, 14.7 in 1901, and 13.6 in 1900.

BIRTHS.

The total number of births in the county was 6,382, giving a birth-rate of 26.4, compared with 26.6 in 1903 and 26.7 in 1902. The urban rate was 27.1 and the rural rate 25.8, the difference being accounted for principally by the age distribution of the population. The three districts with the highest birth-rates were Oakengates (33.9), Dawley (30.7), Cleobury Mortimer (30.0). These districts had also the highest birth-rates in the preceding year.

The rates for the Registration County and their comparison with those of the Country generally are shown in the following Table:—

BIRTHS.

Table 3.

	Births to 1000 Living.						Illegitimate Births to 1000 Births.					Males Born to 1000 Females Born.				
	Ten Years. 1890-1899	1900	1901	1902	1903	1901	Ten Years 1890-1899	1900	1901	1902	1903	Ten Years 1890-1899	1900	1901	1902	1903
Shropshire ... ... (Registration County)	26·8	25·7	26·2	26·5	26·1	26·3	72	62	59	60	61	1031	1032	1001	1021	1029
England and Wales ...	30·0	28·7	28·5	28·6	28·1	27·9	42	40	40	39	39	1036	1033	1039	1039	1035

The above Table shows that the birth-rate in the county is consistently below that of the whole of England and Wales. In the 10 years 1890—1899 it was over 10% below that of the country generally, and during the last 5 years about 8%. This difference in the birth-rates, which otherwise might have considerable significance, is I think entirely accounted for by the diffence in age distribution of the population. In England and Wales 32.3% of the population are between 20—40 years of age, the most active child-bearing period, whereas between the same ages in Shropshire there is only 28.7% of the population. There has been practically no diminution of the birth-rate during the last five years.

I. (URBAN). STATISTICS FOR 1904.

URBAN DISTRICTS.	Estimated Population 1904.	Number of Births.	Birth-rate.	DEATHS UNDER 1 YEAR OF AGE.		DEATHS AT ALL AGES.		Deaths after correction for deaths of non-residents dying in the district, and of residents dying outside.	DEATH-RATES FROM VARIOUS CAUSES.						
				Number.	Rate per 1000 Births.	Number	Death-rate.		Seven Chief Zymotic Diseases	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.
Bishop's Castle	1350	32	24·0	0	0	18	13·3	9·8	·0	·0	·75	·0	3·0	2·2	·0
Bridgnorth	6052	133	21·9	21	158	117	19·3	17·2	·0	·0	1·98	·33	3·4	1·9	1·1
Church Stretton	1160	21	19·1	1	48	20	17·2	17·3	·0	·0	1·8	·0	1·8	·9	·0
Dawley	7620	235	30·7	28	119	111	14·6	16·6	·39	·0	1·3	·13	2·7	1·8	1·0
Ellesmere	1970	52	26·4	6	187	38	19·3	14·2	1·0	·0	·50	·0	1·5	1·0	·0
Ludlow	6328	145	22·9	18	124	102	16·1	15·1	·47	·31	1·6	·31	2·0	1·1	1·7
Newport	3209	77	24·5	8	104	57	17·8	16·6	·64	·0	1·9	·32	2·9	3·2	1·9
Oakengates	11000	373	33·9	57	152	173	15·7	16·7	2·4	·18	1·0	·63	2·2	1·4	1·1
Oswestry	9900	252	25·4	23	91	141	14·2	16·4	·50	·30	1·2	·30	2·3	2·3	·60
Shrewsbury	28937	753	25·8	124	164	486	16·8	16·7	1·58	·17	1·7	·61	2·7	1·6	1·0
Wellington	7350	215	29·2	23	107	115	15·6	14·1	1·6	·13	·68	·27	2·3	1·2	1·2
Wem	2210	61	27·6	5	82	42	19·0	17·2	·90	·0	1·3	1·3	1·8	·0	2·2
Wenlock	15894	424	26·6	53	125	274	17·2	17·0	·69	·31	1·7	·37	3·0	2·2	1·0
Whitchurch	5314	153	29·1	16	105	97	18·3	17·7	·57	·19	·95	·0	2·5	2·5	1·3
Whole of Urban Districts	108035	2926	27·1	383	132	1791	16·6		1·1	·17	1·4	·41	2·6	1·8	1·1
Whole of Urban and Rural Districts	241604	6382	26·4	737	115	3808	15·7		1·0	·18	1·1	·40	2·2	2·0	1·0

of England and Wales. In the 10 years 1890—1899 it was over 10% below that of the country generally, and during the last 5 years about 8%. This difference in the birth-rates, which otherwise might have considerable significance, is I think entirely accounted for by the diffence in age distribution of the population. In England and Wales 32.3% of the population are between 20—40 years of age, the most active child-bearing period, whereas between the same ages in Shropshire there is only 28.7% of the population. There has been practically no diminution of the birth-rate during the last five years.

I. (RURAL). STATISTICS FOR 1904.

Rural Districts.	Estimated Population 1904.	Number of Births.	Birth-rate.	Deaths under 1 Year of Age.		Deaths at all Ages.		Death-rate after correction for non-residents dying in the district and of residents dying outside.	Death-rates from Various Causes.						
				Number	Rate per 1000 Births.	Number.	Rate.		Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tuber-cular Diseases	Bronchitis and Pneumonia	Heart Diseases	Cancer.
Atcham	20840	516	25.9	45	87	412	19·7	14·4	1·4	·35	·75	·35	1·6	2·3	1·06
Bridgnorth	8600	231	26.9	21	91	113	13·1	15·2	1·7	·11	·58	·46	2·9	1·9	·46
Burford	1210	22	18.1	1	45	20	16·5	14·0	·0	·0	·83	·0	1·6	·83	1·6
Chirbury	3540	80	22.6	8	100	55	15·5	16·6	·56	·28	·84	·56	2·5	1·4	1·1
Church Stretton	4440	104	23.1	8	77	49	11·0	11·8	·22	·44	·88	·0	1·7	1·5	·22
Cleobury Mortimer ..	6400	192	30.0	32	158	100	15·6	15·6	1·1	·15	·47	·31	3·2	1·7	·15
Clun	6770	189	28.1	11	58	90	13·3	14·9	·0	·0	1·0	·15	2·2	3·1	1·8
Drayton	11626	315	27.1	36	114	183	15·7	15·9	1·4	·0	·77	·43	2·7	3·5	1·3
Ellesmere	7900	208	26.3	18	86	108	13·6	14·9	·50	·12	1·0	·25	1·6	1·9	·63
Ludlow	9535	231	24.2	28	121	127	13·3	14·5	1·5	·10	·62	·21	2·7	1·0	1·0
Newport	6056	176	28.9	22	125	81	13·4	14·0	1·15	·49	·98	·16	2·0	1·3	·98
Oswestry	14900	402	26.9	48	119	246	16·5	15·9	·40	·13	1·2	·47	·87	2·4	1·5
Shifnal	8850	216	24.4	26	120	138	15·6	15·8	·79	·11	·79	·79	2·2	2·0	·68
Teme	1846	37	20.0	5	135	22	11·9	11·9	·54	·0	·54	·0	1·08	1·62	1·08
Wellington	11388	307	26.9	33	107	139	12·2	13·2	·79	·09	1·3	1·05	1·9	2·5	1·1
Wem	8265	180	21.7	11	61	106	12·8	13·4	1·1	·48	·96	·12	1·3	1·8	·60
Whitchurch	1907	50	26.0	1	20	28	14·7	16·1	·0	·52	·52	·0	2·6	6·3	·0
Whole of Rural Districts.	133569	3456	25.8	354	102	2017	15·1		·95	·19	·87	·39	2·0	2·2	·96
Whole of Urban and Rural Districts	241604	6382	26.4	737	115	3808	15·7		1·0	·18	1·1	·40	2·2	2·0	1·0

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DEATHS.

The total number of deaths in the county was 3,808, compared with 3,576 in 1903, 3,654 in 1902, and 3,745 in 1901.

Table 4.

CRUDE AND CORRECTED DEATH RATES.

URBAN AND RURAL DISTRICTS OF SHROPSHIRE AND ENGLAND AND WALES.

Period.	Shropshire		England and Wales	Urban Districts of Shropshire		Urban Counties of England and Wales	Rural Districts of Shropshire;		Rural Counties of England and Wales.
	Crude Rates.	Corrected Rates		Crude Rates.	† Corrected Rates.	Corrected Rates.	Crude Rates.	† Corrected Rates.	† Corrected Rates.
1904	15.7	14.0	16.2	16.6	15.5	*	15.1	13.0	*
1903	14.8	13.2	15.4	15.8	14.7	16.99	14.3	12.3	12.88
1902	15.1	13.4	16.3	16.7	15.6	17.8	13.9	11.9	13.7
1901	15.5	13.8	16.9	16.2	15.1	17.7	15.0	12.9	15.3
1900	16.4	14.6	18.2	17.7	16.5	18.9	15.5	13.3	16.6

* These figures are not yet available.

† These are the rates of mortality that would result if the age and sex constitution of the population of the districts were identical with those of the population of England and Wales at the Census, 1901.

In the above Table the figures for the whole County of Shropshire should strictly be compared with those of the rural counties of England and Wales.

As in last year's report the deaths in public institutions have been distributed, so far as possible, amongst the districts to which they belong, with the result that fairly correct death-rates are obtained, although there is still a slight discrepancy. One hundred and ninety-eight deaths have been deducted and 138 added. There were 43 deaths in the county asylum and workhouses not belonging to the county and three deaths in outside workhouses which belong to the county.

The death-rate, 15.7, shows a slight increase on the three preceding years.

With the exception of the small urban district of Church Stretton, Whitchurch Urban District and Bridgnorth Borough had the highest death-rates.

INFANTILE MORTALITY.

The infantile mortality rate for the whole county was 115, compared with 100 in 1903 and 102 in 1902. The rate for England and Wales for 1904 was 146, and excluding 218 towns the rate was 125.

The rate for the urban districts of Shropshire was 132 and that for the rural districts 102.

Of the rural districts, Cleobury Mortimer was the only one with an exceptionally high rate. In his report on this district Dr. Whitaker says: " . . . there is evidence of the need of better feeding and management, a subject to which I have frequently referred, as calling for better training in the elementary schools."

Drayton Rural District, which for some years had an excessive infantile rate, had a rate for 1904 not greatly above the average.

Of the urban districts, Ellesmere, Shrewsbury, Bridgnorth and Oakengates had somewhat excessive rates. In Shrewsbury the high mortality was partly due to the prevalence of measles and whooping cough. Dr. Gepp advises the distribution of leaflets, dealing with the feeding of infants, through the registrars of births and deaths.

In my report for 1903 I said: " The most promising means of reducing infantile mortality are the teaching of hygiene, particularly the feeding, clothing, etc., of infants to the older girls in the Elementary Schools, and the visiting and teaching of mothers in their own homes. This is being done to a small extent by the County Council, but, if the matter is to be seriously grappled with, hygiene must be made a compulsory subject in Elementary Schools."

I have hopes that the Midwives Act can be worked so as to have considerable educational effect, and in other ways it should help to lower the infantile mortality.

CHIEF CAUSES OF DEATH.

Table 5.

	Urban Districts. 1904.		Rural Districts. 1904.		Whole County. 1904.		Whole County. 1903.		England and Wales. 1903.
	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Death-rates.
Seven Chief Zymotic Diseases	116	1·1	127	·95	243	1·0	133	·56	1·53
Phthisis	155	1·4	117	·87	272	1·1	242	1·0	1·20
Other Forms of Tuberculosis	45	·41	53	·39	98	·40	101	·42	·54
Bronchitis	130	1·2	132	·99	262	1·1	235	·97	1·11
Pneumonia	151	1·4	135	1.0	286	1·2	264	1·1	1·23
Heart Disease... ...	194	1·8	295	2·2	489	2·0	402	1·66	1·40
Cancer...	117	1·1	129	·96	216	1·0	237	·98	·87

The deaths from all these causes except " other tuberculous diseases " were greater in number in 1904 than in 1903, the most marked increase being in zymotic diseases.

II. (URBAN).

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1904, IN THE URBAN DISTRICTS OF SHROPSHIRE.

CAUSE OF DEATH.	Total Deaths in Urban Districts in Age Periods.							Causes of Death in the Different Urban Districts.													
	All Ages.	Under 1.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.	Bishop's Castle.	Bridgnorth.	Church Stretton	Dawley	Ellesmere.	Ludlow.	Newport	Oakengates.	Oswestry	Shrewsbury.	Wellington.	Wem.	Wenlock	Whitchurch.
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	29	10	16	..	3	..	..	..	..	..	2	..	..	..	5	1	15	1	..	5	..
Scarlet Fever	3	..	2	..	..	1	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..
Whooping Cough	31	14	17	..	..	..	..	..	..	..	..	1	1	..	2	2	16	6	2	..	1
Diphtheria and Membranous Croup ..	19	1	9	7	..	2		..	..	..	..	..	1	..	9	1	..	4	..	4	..
Croup	5	..	5	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	2	..
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	7	..	2	1	1	3	..	..	..	..	..	..	..	..	2	..	3	1	..	1	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	19	2	..	1	..	8	8	..	..	..	..	..	2	..	2	3	5	1	..	5	1
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	27	24	..	1	..	..	2	..	..	..	1	1	1	2	7	1	11	..	..	1	2
Enteritis	55	40	6	1	..	4	4	..	2	..	5	..	..	1	9	2	25	2	1	5	3
Puerperal Fever	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Septic Diseases	21	1	4	1	3	9	3	..	..	..	..	..	..	1	1	..	12	..	..	7	..
Phthisis	155	..	1	5	30	105	14	1	12	2	10	1	10	6	11	12	50	5	3	27	5
Other Tubercular Diseases	45	14	13	6	6	5	1	..	2	..	1	..	2	1	7	3	18	2	3	6	..
Cancer—Malignant Disease	117	..	..	1	1	68	47	..	7	..	8	..	11	6	12	6	30	9	5	16	7
Bronchitis	130	23	6	1	..	28	72	2	11	1	11	1	4	5	10	15	34	7	..	24	5
Pneumonia..	151	48	39	3	4	29	28	2	10	1	10	2	9	4	14	8	44	10	4	25	8
Pleurisy	4	..	..	..	..	2	2	..	..	..	1	..	..	..	..	2	1	..	..	..	..
Other Diseases of Respiratory Organs ..	3	..	..	..	..	1	2	..	..	..	..	..	..	..	..	1	2	..	..	..	..
Alcoholism—Cirrhosis of Liver ..	28	..	..	..	1	22	5	..	1	..	1	..	1	..	2	3	9	3	2	2	4
Venereal Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Birth	48	48	..	..	..	..	..	..	3	..	5	2	..	2	6	2	17	2	..	8	1
Diseases and Accidents of Parturition..	9	1	..	..	..	8	..	..	..	..	..	..	..	..	3	..	3	2	..	1	..
Heart Diseases	194	2	3	1	3	86	99	3	12	1	14	2	7	10	16	23	48	9	..	36	13
Accidents	39	4	5	2	4	17	7	..	..	..	3	1	1	2	7	5	6	2	1	8	3
Suicides	5	..	..	..	..	5	..	..	..	..	..	1	1	..	1	..	..	1	..	1	..
All other Causes	636	151	15	12	10	120	328	5	44	14	52	16	45	12	56	73	138	37	17	87	40
Total	1781	383	143	43	66	524	622	13	104	19	127	28	96	52	184	163	489	104	38	271	93

II. (RURAL).

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1904, IN THE RURAL DISTRICTS OF SHROPSHIRE

CAUSE OF DEATH.	Total Deaths in Rural Districts in Age Periods.							Causes of Death in the different Rural Districts.																
	All Ages.	Under 1.	1 and under 5.	5 and under 15	15 and under 25	25 and under 65	65 and upwards	Atcham.	Bridgnorth.	Burford.	Chirbury	Church Stretton	Cleobury Mortimer.	Clun.	Drayton	Ellesmere.	Ludlow.	Newport	Oswestry	Shifnal	Teme.	Wellington.	Wem.	Whitchurch.
Small-pox	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	25	10	10	5	..	..	..	3	5	..	2	1	..	..	8	..	..	1	..	4	1	..	..	..
Scarlet Fever..	5	..	2	2	..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	2	1	..
Whooping Cough	58	31	27	..	..	..	..	20	7	..	..	..	3	..	4	3	5	4	3	1	..	3	5	..
Diphtheria and Membranous Croup ..	20	..	12	7	..	1	..	3	2	..	..	..	1	..	..	..	8	..	1	1	..	2	2	..
Croup	5	..	2	3	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	1	..	1	..	..
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	2	..	..	..	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	26	3	..	1	..	10	12	7	1	..	1	2	1	..	..	1	1	3	2	1	..	1	4	1
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	16	11	1	..	..	3	1	1	1	..	..	..	3	..	1	..	2	2	2	1	..	2	1	..
Enteritis	24	11	6	..	1	3	3	3	4	..	2	..	1	1	2	..	2	2	3	..	..	3	1	..
Puerperal Fever	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	3	..	..	..	..	2	1	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..
Other Septic Diseases	10	..	3	2	..	3	2	2	..	..	..	..	..	3	..	..	1	1	..	..	..	..	2	1
Phthisis	117	..	2	5	16	88	6	15	5	1	3	4	3	7	9	8	6	6	18	7	1	15	8	1
Other Tubercular Diseases	53	19	15	3	5	11	..	7	4	..	2	..	2	1	5	2	2	1	7	7	..	12	1	..
Cancer—Malignant Disease	129	1	..	..	2	66	60	21	4	2	4	1	1	12	15	5	10	6	22	6	2	13	5	..
Bronchitis	132	24	6	1	1	18	82	15	14	2	4	4	11	12	15	7	10	8	4	11	2	9	3	1
Pneumonia	135	35	31	3	1	35	30	17	11	..	5	4	10	3	16	6	16	4	9	9	..	13	8	4
Pleurisy	3	1	..	..	..	1	1	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Respiratory Organs	4	1	..	1	..	2	..	..	..	..	1	..	..	..	..	..	1	..	2	..	..	..	..	..
Alcoholism, Cirrhosis of Liver ..	19	..	..	..	..	12	7	4	..	..	..	1	..	1	2	1	2	..	2	1	1	1	3	..
Venereal Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Births	77	77	..	..	..	..	..	11	8	..	1	3	8	..	5	2	6	7	11	5	4	3	3	..
Diseases and Accidents of Parturition	7	..	..	..	1	6	..	1	..	..	..	..	..	..	2	3	..	..	..	1	..	..	..	..
Heart Diseases	295	2	4	3	8	113	165	46	17	1	5	7	11	21	41	15	10	8	36	18	3	29	15	12
Accidents	55	3	8	5	4	25	10	4	4	2	1	1	4	4	1	4	4	6	10	3	2	2	2	1
Suicides	14	..	..	..	4	7	3	2	..	..	..	..	..	..	2	1	1	..	2	3	..	1	2	..
All other Causes	730	126	21	14	15	172	382	101	44	9	28	24	41	35	53	59	52	21	103	60	6	39	45	10
Total	1966	355	150	55	60	581	765	287	131	17	59	53	100	100	185	118	139	85	237	140	22	151	111	31

REGISTRATION COUNTY OF SHROPSHIRE.

AVERAGE ANNUAL DEATH-RATES PER MILLION, FOR CERTAIN DISEASES, IN GROUPS OF YEARS FROM 1856—1903.

Table 6.

PERIODS.	Small-pox.	Measles.	Scarlet Fever.	Diph-theria.	Whooping Cough.	Typhus Fever.	Enteric Fever.	Continued Fever.	Cancer.	Phthisis.
1856—1860	129	206	546	245	339	*	617	*	—	2306
1861—1870	112	277	548	232	298	*	644	*	—	2169
1871—1880	78	186	518	190	271	33	246	75	—	1640
1881—1885	10	147	323	207	244	8	168	17	626	1377
1886—1890	1	213	79	125	319	5	127	5	782	1359
1891—1895	3	163	132	203	240	1	92	.7	847	1144
1896—1900	.7	161	65	210	234	0	82	1	953	1028
1901—1903	4	171	61	97	228	0	27	0	1019	943

* In these years Typhus, Enteric and continued Fevers were not differentiated.

This Table has been compiled from the last 48 of the Registrar-General's Annual Reports. It is not only of great interest as an indication of the improvement of the county with respect to infectious diseases in past years, but it is of great practical interest with regard to future work, placing, as it does, before us the changed relative positions of the various diseases.

Small-pox has almost been wiped out by vaccination, and would be completely exterminated by efficient vaccination and re-vaccination.

Whilst the deaths from enteric fever and scarlet fever have been reduced by 80—90%, there has been little reduction in the mortality from diphtheria, measles or whooping cough.

The result is a complete alteration in the relative importance of these diseases. Reference to this table will explain the prominence that has been given in the past to the prevention of scarlet fever, to the comparative neglect of many of the other infectious diseases. Now, however, that the mortality from scarlet fever has fallen from 540—550 per million to about 60 per million, some of the minute attention and care that has hitherto been reserved for scarlet fever may with advantage be bestowed on the three infectious diseases which cause the great majority of the deaths, viz:—measles, whooping cough and diphtheria.

Enteric fever stands on a different basis, for the principal measures for the prevention of this disease are those tending to the general improvement of the sanitary condition of the county. Its presence, unless imported, is an indication of some insanitary condition and we should not rest satisfied until this disease has been exterminated. The cause of the actual decrease of typhoid fever may, I suppose, be put down to improved sanitary conditions and to the increased cleanliness and carefulness in living of the people. The cause of the decrease of scarlet fever mortality is undoubtedly due to a change in the type of the disease. The change is not in any way due in this county to hospital isolation. The suggestion has frequently been made that the change in the type of scarlet fever is due to hospital isolation, but it appears to be entirely refuted by the experience of districts where hospital isolation has not been practised. If this change in type is due to improved sanitary conditions it will probably be still more accentuated as time goes on, otherwise the lessened severity of the disease may only be temporary. The greatly decreased mortality from phthisis is a matter for congratulation, although it is probable that some of the earlier deaths entered as phthisis were not due to that disease.

The rapidly increasing number of deaths from cancer is the one discouraging feature of this table. Since 1900 the deaths from cancer have actually exceeded those from phthisis, although in the period 1881—1885 they were only equal to 45% of the phthisis deaths.

INFECTIOUS DISEASES.

The death-rate from the common infectious diseases was 1.0, compared with .56 in the previous year, the increase being principally in whooping cough and measles and to a less extent in diphtheria.

Table 7.

ANALYSIS OF DEATHS AND DEATH-RATES FROM THE COMMON INFECTIOUS DISEASES.

1904.

	Seven Chief Zymotic Diseases.		Small-pox.		Scarlet Fever.		Typhoid Fever.		Diphtheria & Membranous Croup.		Measles.		Whooping Cough.		Diarrhœa.	
	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.
rban Districts ..	116	1·1	0	0	3	·03	7	·06	19	·17	29	·26	31	·28	27	·25
ral Districts ..	127	·95	1	·008	5	·04	2	·01	20	·15	25	·18	58	·43	16	·12
hole County .	243	1·0	1	·004	8	·03	9	·04	39	·16	54	·22	89	·37	43	·18
ngland & Wales	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Notifications			Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.						
rban Districts ..	..	..	3	0	233	1·3	36	19·4	138	13·8	..	..	..	..	..	..
ral Districts ..	..	..	8	12	330	1·5	14	14·3	117	17·1	..	..	..	..	..	..
hole County ..	..	..	11	9	563	1·4	50	18·0	255	15·3	..	..	..	..	..	..

Small-pox.—There were four outbreaks of Small-pox during the year :—Wellington (3 cases), Ludlow (2 cases), Atcham (4 cases), Wem Rural (2 cases). These were the subjects of special reports and were commented upon in my quarterly reports. In all four outbreaks the disease was introduced from outside the county. Except for the two cases in the county asylum, the origin of which was doubtful, the secondary cases that occurred in each outbreak were infected before the first cases were diagnosed, so that the spread was not in any way due to defective isolation. It was fortunate that three out of the four outbreaks occurred in districts provided with small-pox hospital accommodation, and that the fourth outbreak was at an isolated cottage. Only one of the cases proved fatal.

Scarlet Fever.—The deaths from scarlet fever were 8, exactly the same number as in the previous year. The number of cases was 563, compared with 535 in 1903, so that the case mortality has undergone a still further reduction from 1.5% to 1.4%. The rural districts were affected slightly more than the urban districts. Of the rural districts the most severely affected were Wellington (69 cases), Drayton (47 cases), and Atcham (66 cases); and of the urban districts, Newport (25 cases), Whitchurch (23 cases), and Shrewsbury (66 cases). No information is given with regard to the epidemic in Wellington Rural District except that two schools were closed. In Drayton Rural District 24 of the cases were in Norton Parish and the schools were closed for seven weeks. In Atcham Rural District about half the cases occurred at Bicton, where the disease was being spread amongst school children by mild overlooked cases. In Newport Urban District there was strong reason to suspect spread by two children returning to school whilst infectious. The cases in Whitchurch Urban District were the end of the epidemic which has lasted four years. In Shrewsbury the cases, although mild, were more numerous than they had been since 1899.

III. (URBAN).

CASES OF INFECTIOUS DISEASE NOTIFIED IN 1904 IN URBAN DISTRICTS.

Notifiable Disease.	Cases in Urban Districts in Age Periods.							Total Cases Notified in each Locality.													
	All Ages.	Age Periods.						1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Under 1	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards	Bishop's Castle	Bridgnorth.	Church Stretton.	Dawley	Ellesmere.	Ludlow.	Newport.	Oakengates.	Oswestry.	Shrewsbury.	Wellington.	Wem,	Wenlock.	Whitchurch.
Small-pox	3	..	..	..	..	3	..	..	..	..	..	..	2	..	..	..	..	1	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	137	4	35	60	17	21	..	..	1	..	5	..	5	1	57	7	8	18	8	25	2
Membranous Croup ..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Erysipelas	39	1	2	2	6	22	6	..	..	..	2	..	..	1	10	3	11	5	..	7	..
Scarlet Fever	233	1	62	136	29	5	..	3	8	..	8	1	1	25	17	9	66	35	11	26	23
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	36	..	5	11	8	11	1	..	1	..	2	..	..	1	6	2	9	1	..	14	..
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	5	..	..	..	..	5	..	..	1	..	..	..	..	..	1	..	1	2	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL	454	6	105	209	60	67	7	3	11	0	17	1	8	28	91	21	95	62	20	72	25
Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	6	..	3	2	1	..	..	..	..	..	..	..	..	..	..	6	..	..	..	..	..

III. (RURAL).

CASES OF INFECTIOUS DISEASE NOTIFIED IN 1904 IN RURAL DISTRICTS.

Notifiable Disease.	Cases in Rural Districts in Age Periods.							Total Cases Notified in each District.																
	At all Ages.	Age Periods.						1 Atcham.	2 Bridgnorth.	3 Burford.	4 Chirbury.	5 Church Stretton.	6 Cleobury Mortimer.	7 Clun.	8 Drayton.	9 Ellesmere.	10 Ludlow.	11 Newport.	12 Oswestry.	13 Shifnal.	14 Teme.	15 Wellington.	16 Wem.	17 Whitchurch
		Under 1.	1 and under 5.	5 and under 15	15 and under 25	25 and under 65	65 and upwards.																	
Smallpox	8	..	..	1	1	5	1	4	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	114	..	27	60	13	14	..	19	2	1	..	..	6	5	3	1	31	16	2	6	..	20	2	..
Membranous Croup ..	3	..	2	1	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..
Erysipelas	57	..	1	1	4	44	7	3	1	..	6	..	4	5	12	4	..	2	4	1	..	10	5	..
Scarlet Fever	330	..	61	237	23	9	..	66	7	1	..	13	8	14	47	21	15	17	11	9	4	69	28	..
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	14	..	4	1	2	7	..	2	1	..	..	..	..	3	1	1	1	2	3	..	..	..	..	..
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	2	..	..	..	..	2	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	528	..	95	301	43	81	8	95	11	2	6	13	19	27	63	27	48	37	20	16	4	102	38	0
Measles	21	3	9	7	2	..	..		..	..	2	..	..	..	..	..	..	..	..	..	..	19	..	..
Phthisis	4	..	..	..	3	1	..	..	..	..	3	..	..	..	1	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

MEASLES.—The total number of deaths in the county was 54, compared with 28 in 1903, 33 in 1902, and 50 in 1901. The mortality was highest in Drayton and Bridgnorth of the rural districts, and Oakengates, Shrewsbury and Wenlock of the urban districts.

Table 7 shows that measles is responsible for a very considerable number of deaths in the county and that the mortality now many times exceeds that of scarlet fever. It is therefore very necessary that every reasonable precautionary measure should be taken.

There can be no doubt that the principal spread of measles is by means of schools and that in towns at least the spread in schools is mostly confined to the infant departments.

The problem then to be considered is how best to prevent or lessen this spread, at the same time interfering with education as little as possible.

Dr. Kerr, the Medical Officer to the London Education Authority, and Dr. Davies, the Medical Officer of Health of Woolwich, have adopted a plan with regard to school closure for measles which has proved successful on several occasions and which, especially in country districts, I have no hesitation in saying should prove very successful if administered with care. For its success, however, prompt notification by the school authority of every case is necessary.

The following is a brief explanation of the practice adopted. It seems certain that measles, unlike scarlet fever and diphtheria, is almost always introduced into a school by a child suffering from this disease attending in the early stage. If an epidemic in a school be inquired into, this first case from which all the others have arisen will generally be discovered. The incubation period of measles is from 10—12 days or 14 days to the appearance of the rash, and it is consequently about this time after the attendance of the first infectious child that the first crop of cases may be expected. If the school is kept open, in another 12 or 14 days a second crop of cases will occur. Dr. Kerr finds that the second crop of cases almost exhausts the susceptible material, *i.e.*, the epidemic usually comes to an end or almost to an end with the second crop. This last statement is a most important one for it means that there is no object in closing a school except after the first case and before the first crop of cases has broken out. If the first case is overlooked and the school is kept open until after the first crop, it may as well be kept open throughout. This, however, is not absolutely correct because a third crop, generally of smaller dimensions, often breaks out and this might be prevented.

It is quite evident, however, that the proper action is *to close the school after the first case for such a period as to cover the time of onset of illness of the first crop of cases.* The children affected would then develope the disease at home instead of at school.

For this purpose 7—9 days closure is generally sufficient, and in many cases it is unnecessary to close the whole department, for class closure has been found very efficient.

A good rule for general application would be *to keep the school open for a week after the day on which the infectious child had attended, and then close for 10 days.* This would require slight modification according to the stage of the first case whilst attending school.

Dr. Kerr says: "closure must take place on the occurrence of the first case in a susceptible class." In order to have the knowledge as to whether or not a class is susceptible it is necessary that records be kept of the measles history of each child. It has been found by experience that when the proportion of protected children rises to a certain percentage, which varies to some extent with the conditions of the school, but which may roughly be put at 70 to 80%, there is little danger of an outbreak.

It requires careful consideration to decide whether a whole school or department should be closed or whether the closure should be confined to one class. With the method of closure above described probably the closure should be confined to the room in which the infected case has occurred. In this way, although closures may be more frequent, being for short periods and affecting only a small part of the school, they will interfere much less than formerly with education.

There was a very considerable number of schools closed during the year on account of measles, but as the Medical Officers of Health, who closed the schools or who sanctioned the closure of the schools, were not as a rule furnished with the information necessary for efficient closure, it is very doubtful whether beneficial results followed. I have detailed information with regard to one school only.

The particulars of this outbreak are instructive as they show how useless late closure of a school is to prevent measles, and they also illustrate the probable effect of the method of closure described above. The details were kindly furnished me by the school-master, but although they seem to have been compiled with the greatest care, yet some of the dates may not be quite exact as the epidemic occurred 15 months previously.

The first case occurred in the boys' school on February 13th and the first group of cases occurred between February 22nd and March 1st, and consisted of 19 boys, 7 girls and 13 infants.

The second group occurred between March 6th and 13th and consisted of 4 boys, 8 girls and 22 infants.

The third group occurred between March 17th and 28th and consisted of 4 boys, 3 girls and 4 infants.

After this there were scattered cases, probably due to infection at home, extending into May, 14 in all.

Besides these there were 3 cases reported as occurring on March 3rd. It was impossible so long after the event to inquire into these. Probably the dates of illness did not correspond with the dates of absence from school.

The school was closed from March 11th to April 11th. Closure at this period obviously could not affect the first or second groups and only very partially the third group of cases.

The first group of cases could not have been prevented by any measures whatever, because they had already been infected by the time the first case became known. But suppose the school had been closed, as suggested above, 7 days after the first outbreak for a period of 10 days, this would have covered the period of outbreak of the 36 cases, who would consequently have developed the disease at home. The school on opening would have been free from measles, the second crop would have been prevented and there would have been no further spread without a fresh introduction.

The peculiarity of this outbreak was the long period over which the first group of cases was spread and also the fact that whereas the boys became ill on various days from February 22nd to March 1st, but mostly on March 25th, the girls and infants, 20 in number, commenced on one day, February 29th, with the exception of one infant commencing on the 28th. If the epidemic could have been investigated at the time I have no doubt that much interesting and useful information would have been elicited.

In order to carry out this method of closure satisfactorily it is necessary that every case of measles should be promptly notified by the school authority. It should be distinctly understood *that failure to notify one case of measles may result in a serious outbreak.* It is also very desirable that a record of each child be kept at the school stating whether the child has or has not had measles.

A matter with regard to attendance at school of children from infected households has recently been raised by Dr. Newsholme, Medical Officer of Health of Brighton. It is usual to exclude all children from infected households from school. In Brighton it has been decided not to exclude children from infected households who have had measles from attending the boys and girls schools. This decision was arrived at on account of the little tendency of measles to spread in any departments except the infants, and on account of the little probability of measles being conveyed by a child not suffering.

There can be no doubt that this procedure would lessen the interference with educational work, and probably would not increase to any considerable extent the amount of measles. It is, however, a departure which should not be taken without the most careful consideration, and it is one that is more likely to be successful in urban than in rural districts.

The measures taken to prevent the spread of measles in schools should be supplemented by efforts to prevent its spread at the homes of the children. Unfortunately in most of the districts the sanitary staff is not sufficient for this purpose. I can only quote again the action taken by Dr. Garstang, Medical Officer of Health for several districts in Cheshire, as the most practicable means of getting this work done. On closure of a school he gets, where possible, the schoolmaster appointed as a temporary inspector, in order to pay daily visits to all infected houses. He has again found this procedure to act most successfully in checking the spread of measles. Not only does such inspection lessen the number of cases but it in a greater measure diminishes the fatality. Many of the deaths from measles are due to a want of knowledge of the seriousness of the disease. Visits of an inspector impress upon the parents not only the necessity for isolation but also the necessity for care in nursing.

It is frequently urged that measures for the prevention of measles are of little use, as practically every child suffers sooner or later. Even if this were correct, it is completely answered by the following quotation from the Registrar-General's Report for 1903 : " As many as 8,610 or 94% of the total deaths from measles were those of children under 5 years of age." If an attack of measles can be postponed the chance of a fatal result is greatly lessened. In this connection it may be mentioned that the exclusion of children under 5 years of age from school, which is likely to be brought about soon, will undoubtedly have a considerable effect on the diminution of the mortality from measles and whooping cough.

Whooping Cough caused 89 deaths, compared with 25 in 1903, 44 in 1902, and 70 in 1901. The death-rate was .37, compared with .34 for England and Wales. The rural districts were more severely affected than the urban.

The districts in which most deaths occurred were Atcham 20, Bridgnorth (Rural) 7, and Shrewsbury 16. All the deaths were of children under 5 years of age.

I have records of ten schools closed either partly or wholly on account of this disease.

The measures taken to prevent the spread of whooping cough are at present very unsatisfactory. It is possible that with good notification from the schools and with the knowledge that is now being gained with regard to measles, that more efficient action will be possible in the future. The uncertainty with regard to the incubation period and the uncertainty and length of the infective period render this disease very difficult to cope with.

I think there can be no doubt whatever that exclusion of children under 5 years of age from school will be followed by a diminished mortality from whooping cough.

Diphtheria.—There were 255 cases and 39 deaths, compared with 153 cases and 27 deaths in 1903 and 105 cases and 13 deaths in 1902. There has therefore been a progressive increase during the last three years.

The districts principally affected were Oakengates (57), Wellington Urban (18), Wenlock (25); and Ludlow Rural (31), Newport Rural (16), and Wellington Rural (20). The outbreaks in Oakengates, Wenlock and Ludlow were the subjects of special reports. In four of the districts the spread of the disease was partly due to school attendance. Bourton school (Wenlock) was frequently closed, and a fresh outbreak occurred each time the school was re-opened.

I hold very strongly that it ought not now to be necessary to close schools for diphtheria if the proper means at our disposal be applied. In this connection I quote Dr. Thomas, one of the Medical Officers to the London School Board: "It has been shown that school closure ought seldom or never to be necessary in elementary schools owing to the prevalence of diphtheria. With modern technique it is possible to discover those who are spreading the disease and obtain their exclusion. The objections to school closure are that the 'carriers' are not discovered and isolated and that there is not the least guarantee that at the end of the period of closure the children who are the cause of the spread of the disease will be innocuous. The closing of schools for diphtheria should be looked upon as a confession of impotence and defeat."

Diphtheria is spread in schools by children who have diphtheria bacilli in their throats but have not suffered from the disease (called 'carriers'), by children who have suffered from diphtheria in a mild and undiagnosed form, and by children who have been known to have been suffering from diphtheria but have returned to school whilst still infectious. To deal with these latter cases I have recommended to the Education Authority that no children who have had diphtheria be allowed to return to school until their throats have been declared free from diphtheria bacilli. The undiagnosed cases and the carriers should be dealt with in the following manner. Whenever there is any indication of school infection by the occurrence of two or more cases in one class within a period that points to a common source, this class should have special attention, and a bacteriological examination should be made of the throats of those children who appear likely to have spread the disease. In some cases it may be necessary to examine all the children of the class, but in the majority of instances it will probably suffice to examine (1) all children who have been absent during a certain period from unexplained causes or minor ailments; (2) children with discharge from the nose or ears or suffering from other conditions not infrequently left by diphtheria; (3) children who habitually breathe through their mouths; and (4) children who are known to have been in contact with a case of diphtheria.

The experience of this method in London during the period August, 1903, to March, 1904, is that the disease was always arrested without the closure of a school.

TYPHOID OR ENTERIC FEVER.—There were 50 cases and 9 deaths, compared with 53 cases and 6 deaths in 1903. No district was at all seriously affected except Wenlock, in which there were 14 cases, and to a less extent Oakengates, in which there were six. Speaking of the outbreak in Wenlock Dr Gepp says: "Of the eight houses infected, seven were in Madeley Ward, and five of these were on the river side. In two of these the river water was used for all purposes and drunk, in two others the river water was carried in for washing purposes and might have been drunk. In the fifth the river water was said not to be used. Of the remaining two outbreaks in Madeley Ward, in one the patient was a child in the habit of visting regularly a house on the river side where river water was brought in for washing purposes, and in the other case drinking water was had from a pump in insanitary surroundings. I have no doubt at all that the use of polluted river water was responsible for at least four of these outbreaks, and possibly for more, and the close connection of practically all with possibilities of bad water is instructive and one is led to hope that the use of river water in the district, and of water from pumps in unwholesome surroundings, will rapidly diminish and die out." Six cases occurred in one house, spread probably by personal infection. Two cases in Clun Rural District and one in Newport Urban District were associated with an impure water supply. Three of the six cases in Oakengates were attributed to defective drainage. The origin of the nine cases in Shrewsbury was obscure and the same remark might be applied to a considerable proportion of the cases throughout the county.

None of the cases were referred to the consumption of infected milk or shellfish.

DIARRHŒA.—There were 43 deaths from diarrhœa, compared with 39 in 1903 and 49 in 1902. The death-rate was .18, compared with .86 for England and Wales and .46 for England and Wales less 218 towns. The rate for the urban districts of the county was twice that of the rural districts. The value of the diarrhœa figures is quite obscured by the undoubted inclusion under enteritis of many deaths which are really due to the same cause as infantile diarrhœa.

	URBAN DISTRICTS.		RURAL DISTRICTS.	
	Under one year of age.	Above one year of age.	Under one year of age.	Above one year of age.
Diarrhœa	24	3	11	5
Enteritis	40	15	11	13

The enteritis deaths under one year in the urban districts very greatly exceed those from diarrhœa and there can be little doubt that a more correct estimate can be formed by combining these two causes of death.

PUERPERAL FEVER.—Seven cases and two deaths occurred during the year, compared with ten cases and four deaths in the previous year. Since the passing of the Midwives Act, this has become of special interest to the County Council as the Local Supervising Authority. Sec. 8 of the Act says: "it shall be the duty of the local supervising authority (3) to suspend any midwife from practice, in accordance with the rules under this act, if such suspension appears necessary in order to prevent the spread of infection." The rules framed under the act deal specificially with puerperal fever. It is very desirable therefore that a complete understanding should be arrived at as to what puerperal fever should include.

Dr. Porter in his Annual Report for 1900 attached the following appendix:—

NOTIFICATION OF PUERPERAL FEVER.

In the last "Nomenclature of Diseases" issued by the Royal College of Physicians it is recommended as follows:—

> "The term 'Puerperal fever' should no longer be used. Pyæmia, Septicæmia, or "Sapræmia, occurring in puerperal women should be described as 'Puerperal pyæmia,' "'Septicæmia,' or 'Sapræmia,'—respectively. The other conditions included under the term "'Puerperal fever' should be returned under 'Affections consequent on Parturition,' the "word 'Puerperal' being in all cases prefixed to the word denoting the local process."

This has led to the belief that as the different diseases above mentioned are not individually specified in the Infectious Disease Notification Act, 1889, there is no legal obligation to notify them. Difficulties have in consequence arisen in certain sanitary districts in London and elsewhere, and in August, 1898, the London County Council sought the advice of the Royal College of Physicians on the matter. The question submitted by the County Council was "whether the diseases peritonitis "and metritis, puerperal septicæmia, and puerperal sapræmia, all of which the Registrar General "includes 'puerperal fever,' are covered by that term for the purposes of notification?"

To consider this question the College appointed a committee consisting of Dr. Payne, Sir John Williams, Bart., Drs. Cullingworth, Champneys, and Tatham, and in November, 1898, these experts reported that they had unanimously resolved as follows:—

> "That this Committee is of opinion that with a view to the limitation of dangerous "infectious diseases, the London County Council would be acting rightly in adopting the "view that the expression 'Puerperal Fever,' as contained in the Infectious Diseases "Notification Act, should be taken to include Septicæmia, Pyæmia, Septic Peritonitis, "Septic Metritis, and other Acute Septic Inflammations in the Pelvis occurring as the direct "result of childbirth."

To a similar question submitted to the Obstetrical Society of London by the Society of Medical Officers of Health, the following answer was given :—

> " The Council of the Obstetrical Society is of opinion that most of the diseases " mentioned are intended to be included under the name of ' puerperal fever ' in the Infec- " tious Diseases Notification Act, 1889. It is also of opinion that an inclusive definition " should be added after the words ' puerperal fever ' in the following form :—' That is, " ' septicæmia and pyæmia, including peritonitis, and all cases of acute pelvic inflammation " ' in connection with childbirth."

This definition, however, cannot be said to have been accepted very generally by the profession. What is now wanted is that the Local Government Board shall define exactly what is meant by puerperal fever, or perhaps better still, withdraw the term and substitute another which shall include those puerperal infectious conditions that are liable to spread from one lying-in patient to another and to which no preconceived notions would be attached.

Erysipelas.—There were 96 cases and 3 deaths, compared with 113 cases and 6 deaths in the previous year.

Influenza.—There were 45 deaths attributed to influenza, compared with 63 in 1903.

TUBERCULOSIS.

Table 8.

	Phthisis.								Other Forms of Tuberculosis.							
	1901		1902		1903		1901		1901		1902		1903		1904	
	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.
rban Districts...	133	1·28	111	1·05	127	1·18	155	1·4	48	·46	45	·43	58	·51	45	·41
ural Districts ...	103	·75	95	·70	115	·86	117	·87	50	·36	30	·21	43	·32	53	·39
hole County ...	236	·98	206	·85	212	1·0	272	1·1	98	·40	75	·31	101	·41	98	·40

	Death-rates			Averages for 5 years 1896 to 1900.	Death-rates.			Averages for 5 years 1896 to 1900.
	1901	1902	1903		1901	1902	1903	
ngland and Wales ...	1·26	1·23	1·20	1·32	·59	·59	·51	·58

As the above table shows there has again been a slight increase in the amount of phthisis throughout the county. This increase was almost entirely in the urban districts.

The rates for the various districts are given in Table I. The phthisis rate of 1.4 for the urban districts, considering their small character, is not by any means satisfactory. The highest rates were Bridgnorth 1.98, Newport, 1.9, Shrewsbury and Wenlock 1.7, and Ludlow 1.6. Church Stretton (1.8) is too small for annual statistics. It must, however, be pointed out that some of these districts, *e.g.*, Bridgnorth, had a low phthisis mortality for 1903.

The rural phthisis rate, although nearly 40% lower than the urban, would still be very excessive if it truly represented the amount of disease originating in rural districts. With the conditions of life that mostly obtain in rural districts, *e.g.*, its plentiful supply of fresh air, good separation of houses, and out-door life, there should be little or no phthisis. The prevalence of phthisis would indicate gross insanitary conditions, such as overcrowded, damp and dilapidated houses, or gross neglect of the ordinary rules of healthy living. Before, however, one can draw reliable conclusions from phthisis mortalities it is necessary so far as possible to apportion the cases to the districts in which they orginated. For this purpose I would suggest that an inquiry be made into the deaths in the county during the last 5 years. The inquiries would have to be made to a great extent through the medical attendants, without whose co-operation nothing satisfactory could be done. Under any circumstances there would be a certain proportion of deaths of which no reliable information could be obtained, but these would probably not interfere much with the general results obtained.

Having in each annual report discussed the steps, that should be taken for the prevention of phthisis, I will here merely state briefly what has been done and what still remains to be done.

Notices warning the public against spitting have been distributed to the workshops, factories, and public-houses of the county. Similar notices have been hung in the waiting rooms and booking halls of the railway stations. An attempt, not altogether successful as yet, has been made to get the Railway Companies to put notices requesting the public not to spit in their carriages.

A bye-law has been passed making it an offence to spit on the floor or walls of a public building or public carriage.

Voluntary notification of consumption by medical men has been adopted by Chirbury, Drayton and Bridgnorth.

Leaflets dealing with the spread of consumption have been drawn up and distributed by the Chirbury Rural District Council.

I would suggest that the bye-law which has now been in operation for some months be put in force.

Voluntary notification might, if worked more energetically, and if made more general throughout the county, be of considerable use.

Leaflets containing the precautions to be observed by persons suffering from phthisis might with very great advantage be forwarded to all the medical practitioners in the county, in order that they could give them to their patients when they thought desirable.

Other leaflets dealing with points of general management of the house and household, such as sanitation, cleanliness, etc. might with the co-operation of the various districts be distributed along with the house-to-house inspection that is now made in many parts of the county.

Great good can undoubtedly be done in the prevention of phthisis by judicious teaching in the higher classes of the elementary schools.

I have previously discussed the uses of a sanatorium, its advantages from a curative, preventive, charitable and educational point of view and also its limitations. The matter is one that should be thoroughly considered by the County Council in all its bearings.

By the careful inspection of workshops, particularly with respect to ventilation and cleanliness, much can be done towards the prevention of phthisis. It is frequently assumed that the very unhealthy workshop conditions are only found in large and crowded towns. Probably this is not so. Dr. Haldane and Mr. Osborne* in their investigations into the ventilation of factories and workshops found the worst instances of inefficient ventilation amongst the workshops of some comparatively small country towns. It would be extremely interesting and might be made the basis of much useful sanitary work, to examine chemically the air of some of the workshops of the small towns of this county.

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* First Report of the Departmental Committee appointed to inquire into the Ventilation of Factories and Workshops.

CANCER.

TABLE 9.
DEATH-RATES FROM CANCER IN THE URBAN AND RURAL DISTRICTS FOR 1900, 1901, 1902, 1903, and 1904.

	URBAN DISTRICTS.							RURAL DISTRICTS.					
	1900	1901	1902	1903	1904	Average for years 1900—1904.		1900	1901	1902	1903	1904	Average for years 1900—1904.
Bishop's Castle	6	.0	2.2	2.2	.0	1.0	Ateham	1.1	1.19	1.1	.95	1.06	1.06
Bridgnorth	.6	1.32	1.1	.72	1.1	1.0	Bridgnorth	.6	.81	.93	1.1	.46	.81
Church Stretton	.0	.0	.0	.96	.0	.23	Burford	.0	.81	.82	1.6	1.6	1.0
Dawley	.4	.79	1.3	1.0	1.0	.92	Chirbury	1.2	1.69	.85	.84	1.1	1.18
Ellesmere	.5	2.05	1.5	3.0	.0	1.4	Church Stretton	.8	1.11	1.54	1.3	.22	1.03
Ludlow	1.5	.44	1.2	.31	1.7	1.3	Cleobury Mortimer	.6	.74	1.2	.94	.15	.76
Newport	2.64	.92	.95	.63	1.9	1.4	Clun	1.5	1.31	.73	.74	1.8	1.24
Oakengates	.5	1.10	.64	1.2	1.1	.93	Drayton	.7	.94	1.3	1.0	1.3	1.06
Oswestry	.5	.62	1.4	1.0	.60	.84	Ellesmere	.7	.88	.5	1.2	.63	.81
Shrewsbury	.8	.73	1.07	.89	1.0	.91	Ludlow	.9	.78	.52	.84	1.0	.83
Wellington	.7	1.25	1.1	1.4	1.2	1.2	Newport	1.6	1.14	.83	1.3	.98	1.2
Wem	.0	1.85	2.3	.9	2.2	1.5	Oswestry	.7	1.21	.74	1.2	1.5	1.08
Wenlock	.9	.94	1.07	.94	1.0	.98	Shifnal	.6	.34	1.2	.67	.68	.72
Whitchurch	1.6	.57	.57	1.3	1.3	1.1	Teme	.5	1.08	.0	.0	1.08	.54
							Wellington	.6	1.01	.6	.52	1.1	.78
							Wem	.7	.72	1.08	.48	.60	.72
							Whitchurch	.0	1.55	.0	1.55	.0	.62
All Urban Districts	.8	.88	1.1	1.0	1.1	1.0	All Rural Districts	.8	.99	.87	.94	.96	.93

Table 10.
DEATH RATES FROM CANCER.

YEAR.	REGISTRATION COUNTY OF SHROPSHIRE.	ENGLAND.
1894	.705	.713
1895	.989	.755
1896	.923	.764
1897	1.060	.787
1898	1.028	.802
1899	.976	.829
1900	.931	.828
1901	.965	.842
1902	1.059	.844
1903	1.033	.872
Average of 9 years 1894—1902.	.959	.796
Average 10 years 1881—1890.	.704	.589

Table 11.

CANCER IN AGE PERIODS 1881—1890.

AGE PERIODS.	Deaths from Cancer in age periods expressed as a percentage of total deaths from Cancer.		Death-rates from Cancer per 1,000.	
	Shropshire (Registration County.)	England and Wales.	Shropshire (Registration County.)	England and Wales.
35—45	8%	11%	.5	.6
45—55	19%	22%	1.4	1.5
55—65	26%	28%	2.5	2.8
65 and upwards.	42%	33%	4.4	4.2

The Urban Rate was again higher than the Rural. This is somewhat strange considering that the distribution of the population in age periods would favour a higher rate in the Rural Districts. The disturbing factor of deaths in public institutions does not apply, so far as Shropshire institutions are concerned, to the last two years, as the deaths have been distributed to the districts to which they belong.

The Urban Districts with the highest mortalities were Wem (2.2), Newport (1.9), Ludlow (1.7), and amongst the Rural Districts Clun, with a rate of 1.8.

The average for the last 5 years shows an excessive rate in the Urban Districts of Wem, Newport, Ellesmere and Ludlow, and in the Rural District of Clun.

Reference to my Report for 1903 will show that these rates require considerable reduction before they can be compared with the general rate of the Country.

ANKYLOSTOMIASIS OR MINERS' WORM DISEASE.

No case of this disease has occurred in the County during the year, but a case that has recently occurred in Lancashire shows that there is a danger of its introduction, and that when introduced our powers of dealing with it are not sufficient.

Although no cases have occurred it is very desirable that mine owners should understand the precautions to be taken and that miners should be instructed as to the nature of the disease, and how they may by their own action prevent its spread if it should be introduced. With these objects in view a circular letter has been sent to all the mine owners, 76 in numbe , and upwards of 5,000 short notices have been sent for distribution amongst the miners.

BACTERIOLOGICAL DIAGNOSIS OF DISEASE.

Quarters of 1904	For Typhoid Fever. Widal's Reaction.			For Diphtheria.			For Phthisis.	
	Positive	Doubtful	Negative	Positive	Doubtful	Negative	Positive	Negative
First ..	0	0	10	18	0	21	5	18
Second ..	1	0	5	15	0	11	14	12
Third ..	6	2	12	21	1	25	8	11
Fourth ..	4	1	11	22	1	33	2	9
Whole year	11	13	38	76	2	90	29	50
	52			168			79	

The total number of specimens sent was 299 compared with 239 in 1903, and 165 in 1902.

VACCINATION.

The vaccination figures for the various Unions were very kindly sent me by the vaccination officers. They deal with the whole Registration County except a small portion of Clun and Ellesmere Unions. I also give the figures separately relating to the Chirbury portion of the Forden Union. The table (No. 11) gives the vaccination statistics for the year 1903 and for the first six months of 1904. It shows that, on the whole, the state of infantile vaccination in the county is in a very satisfactory condition. The most important column is that showing the percentage of unvaccinated, and here it may be remarked that the figures relating to the 6 months, 1904, may give a false impression, because many of these unvaccinated children will be vaccinated during the next few months. For the year 1903 only 3·0 per cent. of the children escaped vaccination, and in one Union (Drayton) only ·3% escaped. The highest percentages of unvaccinated for 1903 were Whitchurch 6·5, Wellington 4·9, and Clun 4·4. Reference to table 12 will show that in Wellington and Clun Unions 39·7% and 34·2% respectively of the children escaped vaccination in the period 1893—1897, and that in the whole county 11% escaped. It is evident from this table that there has been continued improvement since the last Act came into force in the year 1898, and the pessimistic predictions with respect to this Act have proved to have been without foundation.

It is no doubt greatly owing to the comparatively efficient state of vaccination, that the sanitary authorities have been able to deal so satisfactorily with the outbreaks of small-pox in the county.

Table 12.

PERCENTAGE OF UNVACCINATED CHILDREN.

	Years.				
Unions.	1893-1897	1898	1899	1900	1901
Atcham ..	11·9	9·4	6·7	4·4	3·7
Bridgnorth	7·1	8·3	8·6	5·3	6·5
Church Stretton ..	2·4	3·2	·9	2.8	2·5
Cleobury Mortimer..	4·8	5·4	6·4	4·6	6·3
Clun	34·2	18·8	12·4	11·2	9·0
Drayton	1·7	3·6	4·2	4·8	2·8
Ellesmere	2·9	1·6	3·0	2.9	3·2
Ludlow	7·5	9·9	6·7	7·0	5·7
Madeley	5·2	8·2	6·2	2·3	3·2
Newport	5·3	9·6	5·9	5·6	5·4
Oswestry	3·9	5·8	3·1	4·1	2·7
Shifnal	15·7	8·5	7·8	2·0	1·8
Wellington	39·7	33·9	23·8	9·6	6·1
Wem	1·6	7·5	7·9	6·3	5·2
Whitchurch ..	5·1	13·4	16·7	9·5	5·6
Total ..	11·0	10·8	8·3	5·4	4·4

TABLE XI. SHEWING STATE OF INFANTILE VACCINATION DURING 1903 AND FIRST SIX MONTHS OF 1904.

										PERCENTAGES OF BIRTHS REGISTERED.		
UNIONS.	Year.	Births.	Successfully Vaccinated.	Insusceptible of Vaccination	Certificates of Conscientious Objection.	Died. Unvaccinated	Vaccination Postponed.	Removed out of District.	Unaccounted for.	Successfully Vaccinated.	Exempted by "Conscientious Objection" Certificates.	Unvaccinated including (1) Conscientious Objectors. (2) Postponed. (3) Unaccounted for.
1. ATCHAM	1903	1232	1062	8	5	105	17	33	2	86·2	·4	1·9
	1st 6 months 1904	646	534	1	9	66	13	19	4	82·6	1·4	4·0
2. BRIDGNORTH	1903	380	324	1	9	37	2	7	..	85·2	2·3	2·9
	1st 6 months 1904	182	151	..	6	13	3	8	1	82·9	3·3	5·4
3. CHURCH STRETTON ..	1903	141	130	..	1	8	1	1	..	92·2	·7	1·4
	1st 6 months 1904	57	51	..	..	1	3	2	..	89·4	·0	5·2
4. CLEOBURY MORTIMER	1903	229	202	1	4	16	..	6	..	88·2	1·7	1·7
	1st 6 months 1904	109	88	..	1	18	1	1	..	80·7	·9	1·8
5. CLUN	1903	90	79	1	4	5	..	1	..	87·7	4·4	4·4
	1st 6 months 1904	36	30	..	1	1	3	1	..	83·3	2·8	11·1
6. DRAYTON..	1903	319	283	..	1	32	..	3	..	88·7	·3	·3
	1st 6 months 1904	164	144	1	1	12	4	1	1	87·8	·6	3·6
7. ELLESMERE	1903	152	138	..	1	10	2	1	..	90·7	·6	1·9
	1st 6 months 1904	82	73	1	..	5	3	..	..	89·0	·0	3·6
8. LUDLOW	1903	439	389	..	12	24	5	9	..	88·6	2·7	3·8
	1st 6 months 1904	188	155	..	7	15	3	8	..	82·4	3·7	5·3
9. MADELEY..	1903	735	649	..	7	57	16	4	2	88·3	·9	3·4
	1st 6 months 1904	350	318	..	3	20	7	2	..	90·8	·8	2·8
10. NEWPORT	1903	226	202	..	..	16	6	2	..	89·3	·0	2·6
	1st 6 months 1904	123	108	..	1	10	2	2	..	87·8	·8	2·4
11. OSWESTRY	1903	786	688	..	4	74	10	7	3	87·5	·5	2·1
	1st 6 months 1904	358	306	..	..	36	8	4	4	85·4	·0	3·3
12. SHIFNAL	1903	285	239	1	3	22	5	15	..	83·8	1·0	2·8
	1st 6 months 1904	150	128	..	1	10	2	9	..	85·3	·6	2·0
13. WELLINGTON	1903	808	658	..	15	81	18	29	7	81·4	1·8	4·9
	1st 6 months 1904	422	357	..	10	32	4	9	10	84·5	2·3	5·6
14. WEM	1903	277	240	..	8	22	1	4	2	86·6	2·8	3·9
	1st 6 months 1904	125	113	1	4	2	3	2	4	90·4	3·1	8·8
15. WHITCHURCH	1903	291	243	4	12	16	7	9	..	83·5	4·1	6·5
	1st 6 months 1904	176	132	2	5	6	16	3	12	75·0	2·8	..
TOTAL	1903	6390	5526	16	86	525	90	131	16	86·4	1·3	3·0
	1st 6 months 1904	3168	2688	6	49	247	75	71	36	84·8	1·5	5·0
SHROPSHIRE PORTION OF FORDEN UNION	1903	86	77	1	0	8	0	0	0	89·5	·0	·0
	1st 6 months 1904	32	31	0	0	1	0	0	0	96·8	·0	·0

HOSPITAL ACCOMMODATION.

Small-pox.—Atcham Rural District Council has obtained a Berthon Hut and a small tent, otherwise the following statement which appeared in my last report still represents the accommodation in the County for Small-pox.

1.—A hospital for 6 beds	for Shrewsbury and a Berthon Hut to be used in an emergency.
2.—A hospital for about 8 beds ..	for Cleobury Mortimer, Burford and Tenbury and Rock in Worcestershire.
3.—A hospital for about 6 beds ..	for Ludlow Urban and Rural Districts.
4.—A hospital for 6 beds	for Chirbury and the other districts in the Forden Union.
5.—A hospital for 8 beds	for the districts of Whitchurch Urban and Rural, Wem Urban and Rural, and Drayton Rural.
6.—A hospital for 8 beds	for Shifnal and Dawley.
7.—A hospital for 8 beds	for Wellington Urban District.
8.—A hospital for 8 beds	for the Borough of Wenlock, at Broseley.
Isolated Cottages.	
9.—An isolated cottage	for Bishop's Castle and Clun.
10.—An isolated cottage	for the Southern part of Clun.
11.—An isolated cottage	for Teme and Knighton Urban and Rural Districts.

Also the following sites have been secured for putting up buildings or tents in case of emergency :

1.—One to serve Oswestry Borough.
2.— ,, ,, Oswestry Rural District.
3.— ,, ,, Newport Urban and Rural Districts.
4.— ,, ,, Church Stretton Urban and Rural Districts.

Wellington Rural District has entered into an agreement with the Urban District for the use of their hospital.

The Borough of Bridgnorth makes use of its General Isolation Hospital for Small-pox when necessary.

The Hospital at Donnington Wood, which is in a very unsatisfactory condition, is not included in the above list, and Oakengates not having concluded an agreement with Shifnal must be looked upon as without hospital accommodation.

Ellesmere (U. & R.), and Bridgnorth (R.), are absolutely without any hospital accommodation except in connection with the Workhouse. Dr. Gepp recommends to the Atcham Council that a site be obtained, fenced, drained and supplied with water, and a caretaker's cottage built. The same suggestion is made for Church Stretton Urban District.

Other infectious diseases.—The accommodation in the County consists of a small hospital at Bridgnorth, also used for small-pox, a small hospital at Newport, and a new hospital at Market Drayton for 8 beds, erected by the Drayton and Bloreheath Councils.

Dr. Gepp recommends to the Shrewsbury Borough Council that provision should be made for those cases of scarlet fever, diphtheria, and enteric fever, that cannot be isolated at home.

Dr. Cranstoun urges the provision of a hospital for infectious disease, and suggests, as the right amount, two beds for each thousand of the population.

No applications have been made during the year under the Isolation Hospital Acts.

DISINFECTION.

A portable steam disinfector has been provided by the Atcham Rural District Council on account of the outbreak of small-pox, and one at Drayton in connection with the infectious diseases hospital. There are now four steam disinfectors in the County : at Bridgnorth, Wellington, Drayton, and Atcham, in possession of sanitary authorities. Every sanitary authority and every workhouse should have one of these disinfectors. Small ones can now be obtained at the very reasonable cost of £20 or £30.

Section E (Midwives Rules) (5) says—" . . . unless otherwise directed by the local supervising authority all washable clothing should be boiled and other clothing should be sent to be stoved (by the local sanitary authority), and then exposed freely to the open air for several days."

A certain amount of disinfection of houses seems to be done in most districts, but it must necessarily be unsatisfactory so long as the clothes, carpets, and all unwashable fabrics are not properly disinfected.

HOUSE ACCOMMODATION.

The figures from the Census Returns quoted in previous Annual Reports show a very considerable improvement in the housing accommodation, particularly with regard to the decreased amount of overcrowding.

The housing problems are somewhat different in Urban and Rural Districts. Although in rural districts there are usually no overcrowded areas to deal with, yet there are special difficulties due to comparative absence of building.

It has often been too hastily assumed that the improvement of the housing conditions of country districts is of small importance compared with that of towns. It is extremely doubtful, however, if this is so. It is being brought home to us in many ways that the backbone of the country, upon which it ultimately has to rely, is its rural population. The greatest factor in the causation of any physical deterioration, that has taken place during the last generation must without doubt be the increased proportion of the town population compared with the country population. The conditions that will conduce to bring people back to the country and keep them there in a good state of health, are the most important facts which sanitarians have to consider. Of these conditions, one of the principal is the improvement of housing accommodation and conveniences.

In the majority of the rural districts of the county little or no building is going on, and consequently extensive closure of the old and dilapidated houses would probably result in aggravating the evil. There are therefore only two courses open. One is to endeavour by means of careful house to house inspection to maintain the houses in a good state of preservation, and the other is for the rural councils to adopt Part III. of the Housing of the Working Classes Act, and provide houses where necessary. Although the latter may seem a very extreme measure to adopt, yet in some cases it may be the only solution of the problem.

In my report for 1903 the following districts are mentioned as carrying out a house to house inspection—the Rural Districts of Atcham, Church Stretton, Clun, and Whitchurch, and the Urban Districts of Ellesmere, Oakengates, Shrewsbury, Wenlock, and Whitchurch. A house to house inspection is now mentioned as being in progress in Newport Urban District, and Dr. Dallewy says that he hopes that a thorough inspection of the Wem Rural District will be completed this year. A systematic inspection is again recommended for Burford.

In some of the Urban Districts, *e.g.*, Shrewsbury, Wellington, and Whitchurch, there has been a considerable amount of building. Although none of these new houses can be let at the lowest rents, yet one would think they would relieve the congestion sufficiently to allow of the worst houses being dealt with.

Dr. Whitaker in his report on Wellington Urban District for 1903, after commenting on the desirability of the Council building cheap houses, said—" There are, of course, many difficulties in the way, not the least being the special requirements of the Local Government Board, but the time has come when some definite effort should be made towards the reduction of slum property and the provision of modest but suitable dwellings for those earning small wages. A good many new houses have been erected during the year by private persons, but they are practically quite outside the class most needed in the town." In his 1904 report he says " A good deal of extra accommodation has been provided during the year, some thirty new dwellings having been built. They have been erected by private persons and the rents are therefore limited to certain classes of the population, though a number of them will be of service in permitting some of the occupiers of lower rented houses to move up and thus make way for a few of those in the poorer cottages. There still seems to be a need of respectable houses at three shillings and sixpence a week." This process of relieving congestion amongst slum property by building superior cottages is the only one possible where left to the private individual, and it should be supplemented by seizing the opportunity for closing the most insanitary of the old houses. By this method of procedure no doubt the demand for houses and the consequent building will be to some extent increased. In his report on Oakengates Dr. Whitaker refers to his previous report in which he says " There is undoubtedly a large number of houses which are not really fit for habitation, yet because of the lack of better houses at a low rental, you are faced with a serious difficulty in attempting to deal with them." Here again new houses have been put up but at too high a rent for the poorer members of the community.

In Shrewsbury, Dr. Gepp says, " There is however existing a large number of very old houses which from defects of situation or structure, causing dampness or insufficient light or ventilation, or from dilapidation due to age, do not afford wholesome conditions of habitation. The housing problem in Shrewsbury is not, as in many towns, how to provide for a rapidly-increasing and overcrowded population, but rather how to maintain a large number of very old houses, badly placed and designed, and in a condition of natural decay, in as decently wholesome and sanitary condition as possible. Frequent inspection and constant attention to details of individual houses is required for this purpose."

Referring to Dawley, Dr. Gepp says— " I have also pointed out the desirability of the provision of better class dwellings for the working classes, and if these could be provided by the Council at the comparatively low rentals obtaining in the District, there would be considerable advantage, present and future, in their undertaking the provision."

In Drayton Rural District a number of old and dilapidated houses are having the attention of the Council.

The supervision of the building of new houses is one of the most important of the sanitary functions of Local Authorities.

The districts which have adopted building bye-laws and in which, therefore, the inspection of new buildings may be supposed to be carried out, are the Urban Districts of Bishop's Castle, Church Stretton, Ellesmere, Ludlow, Newport, Oakengates, Oswestry, Shrewsbury, Wellington, Wem, and Whitchurch, and the Rural Districts of Atcham (parts), Cleobury Mortimer, Drayton, Ludlow, Oswestry, Shifnal, and Whitchurch.

New Bye-Laws have been adopted in Wellington Urban District during the year. In Dawley the Model Code for Rural Districts has been adopted. In Wem, bye-laws are under consideration.

In the following districts there are no building bye-laws, and consequently buildings can be put up without conforming to sanitary conditions. Bridgnorth (U. & R.), Burford, Chirbury, Church Stretton (R.), Clun, Ellesmere (R.), Newport (R.), Teme, Wellington (R.), Wem (R.), Wenlock.

Dr. Whitaker calls attention to the powers in the bye-laws adopted by Wellington with regard to the paving of yards of existing houses. There can be no doubt that good pavement of house yards has a very great influence on the health of a town.

During the year I reported on the housing conditions of Chirbury Rural District. I found the housing conditions in many parts of the district to be very bad, and as a preliminary step I advised a very complete house to house inspection. I also pointed out the advantages of adopting bye-laws with regard to nuisances, and of distributing, at the house to house inspection, leaflets dealing with the prevention of phthisis and various matters of rural hygiene. Up to the present time no systematic house to house inspection has been made.

SEWAGE DISPOSAL.

I have made during the year a complete examination of all the public sewage works in the County and reported on them. It is therefore unnecessary to enter into this question in detail here.

There have been four Local Government Board Inquiries into applications to borrow money for purposes of sewerage and sewage disposal.

(1)—An application by the Church Stretton Urban District Council for powers to borrow £11,200 for the purpose of sewerage and sewage disposal.

(2)—An application by the Wellington Urban District Council for powers to borrow £3,000 for the sewerage of the newly added area.

(3)—An application by the Ludlow Borough Council for powers to borrow £3,283 for sewerage and sewage disposal, the sewage disposal scheme being to remodel the present works.

(4)—An application by the Newport Urban District Council for powers to borrow £1,500 for purposes of sewerage and sewage disposal so as to complete the scheme already undertaken.

A scheme for sewering part of the town and treating part of the town sewage is under consideration of the Wem Urban District Council.

Plans are being got out for the provision of a septic tank and filter bed for Bayston Hill. Engineers have been instructed to prepare a scheme for Bishop's Castle.

Dr. Gepp recommends that the Meole sewage works be improved.

Dr. Macqueen says "The treatment of Market Drayton sewage should now have the attention of the Council."

Dr. Hawthorn again calls attention to the nuisances caused by the Wellington and Hadley sewage.

Dr. Gepp calls attention to nuisances from brook pollutions at Bourton and Broseley.

At Pontesbury a good deal of the sewage is discharged direct into the brook.

At Clun, the principal sewers of the town discharge direct into the watercourse.

In Dawley and in the various parts of the Borough of Wenlock the outfall of most of the sewers is either into the Severn or into streams leading to the Severn.

With regard to the pollution of the Tetchill brook by the sewage of Ellesmere, the Urban District Council has intimated that they are submitting a scheme to the Local Government Board.

I have been instructed to report on the pollution of the rivers throughout the county, so it is probable that more rapid progress will be made in the future in the purification of the rivers.

The Fourth Report of the Royal Commission on Sewage Disposal, which was issued during the year, deals with the pollution of tidal waters, with special reference to the contamination of shell-fish. The report is consequently not of so much practical interest to this County as it is to counties with tidal waters, and counties where shell-fish are more freely eaten. Without attempting to estimate the amount of typhoid fever due to shell-fish, the Commissioners say that the evil is sufficiently grave to demand a remedy. The Medical Officer of Health of Southend attributed 50% of the cases of typhoid fever in that town in 1902 to shell-fish, and the Medical Officer of Health of Brighton attributed 37% of the cases occurring in Brighton from 1894—1902 to the same cause. Some of the paragraphs dealing with the purification of sewage are so important that their quotation in full is desirable.

> "34. In our Interim Report, dated the 12th July, 1901, we pointed out that effluents from sewage farms as well as effluents from artificial purification processes usually contain large numbers of micro-organisms, many of which appear to be of intestinal derivation.
>
> Since that time we have examined many more effluents of both classes, but we have seen no reason to alter our opinion that such effluents must be regarded as potentially dangerous, inasmuch as they may still contain disease-organisms.
>
> It will be seen that this micro-organism (B. pyocyaneus), which was added to the sewage in large numbers, passed freely through sewage purification works, consisting of :—
>
> (*a*) Septic tank and contact bed.
>
> (*b*) Continuous filter about ten feet in depth.
>
> With the advance of knowledge it is possible that some method of sewage treatment may be devised, by which, within reasonable limits of cost, the dangerous qualities of the sewage may be wholly eliminated, but the treatment of sewage, according to methods at present in use, cannot be relied on so to alter its character as to allow of its discharge in the immediate neighbourhood of shell-fish layings, without incurring appreciable risk of disease being communicated by the consumption of shell-fish taken from such layings. In such cases either the sewage outfall must be removed or the layings closed."

These remarks have a marked bearing upon the question of sewage treatment and water supplies from rivers. So far as one can see, towns deriving water from sewage polluted rivers, whether the sewage has been properly treated or not, will have always to deal with a dangerous liquid, and will have to rely entirely upon the efficiency of the treatment they subject the water to.

WATER SUPPLY.

No considerable schemes have been carried out during the year, but a certain amount of progress has been made in extending schemes and in providing small supplies.

The Meole Brace Scheme and the scheme for supplying Gobowen were both rejected by the Local Government Board. The latter scheme particularly would have been an excellent one if certain difficulties could have been got over. Now it appears likely that the district will have to fall back upon the Liverpool water for its supply.

The districts of Chirbury, Bridgnorth Rural, Clunguntord, and parts of Ludlow Rural especially Craven Arms, Westhope, and Seifton Bach, are specially mentioned as having been short of water during the year.

In Atcham Rural District Dr. Gepp recommends that action be taken under Sec. 3 of the Public Health (Water) Act with regard to the badly constructed and badly situated wells. He considers that the majority can be rendered safe within the prescribed cost. He also recommends that the All Stretton and Little Stretton water supply should be filtered. Speaking of Clungunford he says :—" This village situated in the Clun River valley is in much need of a good water supply. I referred to this question in the Annual Reports for 1900 and 1901. In brief there are some 25 houses and the School, in the village proper. There are a few wells, some five or six, for the supply of individual houses and cottages, but I found two of these waters to be unsafe for use upon analysis some years ago, and another was evidently too turbid to be fit for use. The Hall, the seat of the principal property owner in the village, had a supply laid on from a small reservoir above the village, the water being upland spring water of excellent quality, brought by an old stone coffer drain under grass land from the spring head, a distance of a quarter of a mile or more above the reservoir. From the overflow of this reservoir a supply was laid on to the School, and the overflow of the school supply tank found its way in a short channel and pipe to the roadside, forming the Clungunford 'spout,' to which the village generally resorted for its water. This involved hand carriage of water for a distance of from 200 yards to a quarter of a mile, the 'spout' being also up a steep bank from the village. The natural suggestion was to pipe the 'Spout water' to one or two convenient standpipes in the village. This suggestion has not been acted upon and now the question is made much more serious by the complete failure of the spring. On a recent visit to the spring head no water was found, and Clungunford pool, which appears in normal times to be fed from the same springs was shrinking somewhat rapidly. The villagers were found to be carrying water from any of the private wells which offered a supply, and in some cases were using the River Clun water, which is polluted by the sewage of Clun town and is manifestly very dangerous. It appears to me that the Council should now take up the question seriously of a water supply for the village. The village and the parish has recently suffered from outbreaks of Scarlet fever, Diphtheria, Enteric fever, and Erysipelas, occurring coincidently with the failure of the 'spout' supply, and the absence of good water may have had something to do with some of this prevalence of infection. In the first place search should be made for an upland source from which a small system of supply to standpipes could be laid on. Failing this the sinking of a public well should be considered."

"A new cottage in this village has been built and occupied without a certificate as to water supply being obtained from the Council, as required by the Public Health (Water) Act, 1878. One can have no desire to place any obstacle in the way of the building of new cottages, but the requirement as to Water supply should be rigidly enforced to prevent accentuation of the difficulties of water supply in future in Rural Districts."

Dr. Whitaker says that water is still much needed in several parts of the Clee Hill (Cleobury Mortimer), where little or nothing has yet been done.

Dr. Whitaker recommends that the villages of Ellesmere Rural District should be considered one by one.

Dr. Cranstoun recommends that steps be taken at once to ensure a proper supply of water to the houses on Whitcliffe view, now in the Borough.

Dr. Macqueen says in his report on Drayton Rural District—" In October and November, 1902, I inspected and reported upon the water supplies of the villages in the District and the subject is having the consideration of the Council.

A brief summary of the present position of the schemes for the improvement of the water supply of Shrewsbury will be found in the second part of the report. I quite agree with Dr. Gepp that unless the upland water scheme is financially impracticable it is the one that should be adopted. If a river scheme is finally decided upon it should be of the most perfect description and safeguarded by the same elaborate precautions that are adopted by the London Companies. In my last Annual Report I said " the uncertainty with regard to the efficiency of filtration, the practical impossibility of treating sewage so as to destroy all disease germs, and the uncertainty with regard to future pollution of the river are matters which should weigh heavily in favour of an upland scheme." (See Sewage Disposal page 25). Whichever scheme is adopted no time should be lost in putting an end to the present dirty and dangerous system.

The supply of Bucknell village has been the subject of a special report by Dr. Griffiths, and is now under consideration by the Teme District Council.

A boring is to be made at Pontesbury Hill as previously recommended; and another bore-hole is to be made at Whitchurch.

The Wellington water mains have been extended to Hadley and a number of houses have already been connected. When the village has fully availed itself of this supply, the drain upon the water supply of the Urban District will probably be serious. This matter which is under the consideration of the District Council, certainly requires prompt action.

Longnor Village and " The Oak," Clee Hill, have been supplied during the year. Measures have been taken to improve the water supply of Rodington and Ellerdine Heath. A new well has been sunk at Loppington, and the public well at Shawbury protected.

At Highley a good spring has been utilised and the water collected and pumped to the village, and by this action a very unsatisfactory state of things has been put an end to.

The water scheme which was to have supplied almost the whole of East Shropshire, which was without water, has been practically abandoned. There is reasonable hope that the greater part of this district will be supplied in other ways, but there remains the Ketley and Lawley parts of the Wellington Rural District above the level of supply of the Wellington Waterworks, for which at present no obvious supply is available. The supply of this district should have the very earnest consideration of the Wellington Rural District Council.

I have during the year reported on the water supplies of the village of Brockton, and advised that a supply be obtained from outside the village.

SEWERAGE AND DRAINAGE.

The various minor works that have been carried out in this branch of sanitation will be found summarised in the second part of this report.

A scheme for sewering Little Stretton and connecting the sewers with the Church Stretton main sewer was prepared, but was rejected by the Parish Council.

In Newport Urban District all new drains and all relaid old drains are submitted to the water test. This plan is also adopted in some few other districts. Dr. Cranstoun recommends it for Ludlow. It is extremely important that in every district where there is a system of sewerage, the drains should be submitted to the water test and thoroughly inspected before being covered up. In those districts where a sewerage scheme is being carried out, or is likely to be carried out, the district Councils would be well advised to adopt drainage regulations and to provide means for the water testing of all drains.

SCAVENGING AND EXCREMENT DISPOSAL.

In the rural districts scavenging is almost altogether undertaken by the occupiers, and the disposal of excrement is mostly by privies with underground pits, emptied at long intervals. Of the two rural districts which in part at least are of an urban character, Shifnal and Drayton, the former has a public system of scavenging and the latter has had such a system under consideration. Unfortunately a system of scavenging for Market Drayton has not been adopted. On what grounds the scheme was rejected I am not aware, and from personal observations I consider it eminently desirable.

Hadley is another district in which the improvement in scavenging is greatly needed, either by bye-laws properly enforced or by public scavenging.

The want of scavenging of Cleobury has previously been reported on, as leading to many nuisances, and a public system has been recommended. Dr. Whitaker says it remains as before, and he has nothing to add to his previous remarks on the great advantage that a proper scavenging system would confer on the town.

The scavenging of Highley has been somewhat improved. There is a weekly removal of house refuse at Shrewsbury, Wellington, Church Stretton, Wem, Bridgnorth (partial), and a daily removal at Oswestry.

Dr. Beresford says the scavenging and draining of some of the larger villages in Oswestry Rural District is becoming a pressing question which must be dealt with in the near future.

A public system of scavenging is recommended for Dawley, but in the event of this not being adopted, Dr. Gepp recommends putting a horse, cart and man at the disposal of householders, so that they may have the scavenging done promptly and at cost price.

In the country where public scavenging is neither possible nor desirable, much good can undoubtedly be done by teaching the older boys and girls in the schools how properly to dispose of house refuse, sewage, and closet contents on the gardens. Dr. Whitaker in some of his reports calls attention to this matter.

SCHOOLS AND SCHOOL ATTENDANCE.

In my last Annual Report I gave extracts from some of the District Medical Officers' Reports showing the importance that they attached to proper instruction in the elements of hygiene in schools. I will only quote one extract on this subject. Dr. Whitaker in his report to the Shifnal Rural District Council says: "I am of opinion that the most hopeful means of reducing the mortality from tuberculosis, infectious diseases, and infantile wasting diseases lies in the teaching of the elementary rules of healthy living to the children in our elementary schools." This is a strong statement, but I am inclined on the whole to think, that it is a true one. Much of the improvement in the past, as shown by mortality statistics, which has been put down to improved sanitary conditions is due, I am convinced, to increased intelligence and increased knowledge of the laws of health. The teaching of hygiene in the elementary schools was very fully discussed at a Conference in February last. Although there was some difference of opinion on matters of detail, the meeting was unanimous as to the great importance of this teaching and as to the necessity for it being of a practical nature. What perhaps is somewhat apt to be lost sight of is the necessity for adapting the teaching to the needs of the locality, *e.g.*, the teaching in a rural district should differ in many respects from that in an urban district.

The question of the exclusion of children under five years of age from school appears likely to be settled satisfactorily. There is such a concensus of opinion both from a medical and an educational standpoint against allowing these children to attend school, that pressure should be brought to bear to do away with any financial disadvantages, that may at present stand in the way of their exclusion. I look forward to this change as one of the most important steps that can be taken to reduce the mortality from infectious disease.

The report of the delegates to the Conference on School Hygiene called by the Royal Sanitary Institute is now under the consideration of the Education Committee. As it deals with the health of the scholar from all its sides, the conclusions arrived at will be of the utmost importance.

Until such time as the Education Committee decide to have systematic medical inspection of scholars, some of these benefits can be obtained under the present conditions by the intelligent help of the teachers. One or two instances will illustrate this point. If the teachers are supplied with proper type and instructions they can with a little care pick out those children whose eyesight requires attention on account of errors of refraction, and they can then be sent to the nearest specialist for treatment. Again by observing certain characteristics those children who require treatment for their throats to prevent deafness and to allow of breathing through their noses, can be picked out and sent for treatment. It is not suggested that in this way all the benefits of medical inspection can be obtained, but in the absence of medical inspection something can be done.

With regard to infectious diseases undoubtedly the teachers can do much more than has been done in the past. I have embodied many suggestions on this subject in a memorandum submitted to the Secretary for Elementary Education.

Under the various infectious diseases I have dealt with the closure of schools. I have information of 51 schools being closed on account of infectious disease, but I have good reason for thinking that this is far below the actual number closed.

INSPECTION OF COWSHEDS, DAIRIES, ETC., AND OF DAIRY CATTLE.

In my previous reports I have expressed the opinion that the inspection of cowsheds in this county is very unsatisfactory.

As, however, many of the health reports contained no definite information on this subject it was impossible to criticise in any detail the inspection that was being made. With the object of obtaining at least an outline of the inspection carried on in each district a few queries were appended to the form usually filled in by the nuisance inspectors.

The following table is compiled from answers to these queries:—

URBAN DISTRICTS.	Number of Cow-keepers & Milk-sellers on Register.	Number of Inspections.	Number of Notices, Verbal and Written.	Number of Notices Complied with.	RURAL DISTRICTS.	Number of Cow-keepers & Milk-sellers on Register.	Number of Inspections.	Number of Notices, Verbal and Written.	Number of Notices Complied with.
Bishop's Castle	4	8	4	4	Atcham	42	96	27	19
Bridgnorth	23	56	—	—	Bridgnorth	14	14	—	—
Church Stretton	4	16	2	2	Burford	1	4	—	—
Dawley	21	46	12	12	*Chirbury	—	—	—	—
Ellesmere	15	30	—	—	Church Stretton	14	56	7	6
Ludlow	—	—	—	—	Cleobury Mortimer	—	—	—	—
Newport	20	48	—	—	Clun	5	16	—	—
Oakengates	21	—	—	—	Drayton	—	—	—	—
Oswestry	24	numerous	3	3	Ellesmere	—	—	—	—
Shrewsbury	125*	72	23	19	Ludlow	21	42	several	all
Wellington	22	—	—	—	Newport	14	14	2	—
Wem	15	13	11	10	Oswestry	40	46	23	22
Wenlock	—	—	—	—	Shifnal	27	130	56	56
Whitchurch	28	65	6	6	Teme	—	—	—	—
					Wellington	11	11	—	—
					Wem	—	—	—	—
					Whitchurch	10	No record	10	10

*32 of these premises are outside the borough and are not under the supervision of the Borough Sanitary Inspector.

* I am informed that there are no cowkeepers in this district who come under the Order.

This table is well worthy of most careful consideration. In the first place the number of cow-keepers and dairymen on the registers appears to be ridiculously small and I have no doubt in many districts the registers are very incomplete.

In many of the districts the cowsheds are only inspected once yearly. When one considers that it is not simply the structure of the buildings that calls for inspection, but also the general manner in which the business is managed—the cleanliness of the cowsheds, the cleanliness of the utensils, of the cows, of the hands of the milkers and the general manipulation of the milk—it is obvious that such an inspection must be ineffective. Dr. Gepp recommends in his report for Shrewsbury that the cowsheds be inspected at least six times in the year. This may be taken as a reasonable inspection for town cowsheds. In the county it may be difficult to attain to this standard, but for the inspection to be at all efficient it should be done at least once a quarter.

Of the three districts Drayton, Wem and Ellsmere, which are three of the largest dairying districts in the county, there is practically no information given.

In Drayton Rural District a register is kept and inspection is under the consideration of the council.

In Wem Rural District Dr. Dallewy says: "A register is kept, but at present no Bye-laws have been adopted. They are, however, under discussion, and will shortly be in force in the district, when it is hoped there will be some improvement made in the condition of the cowsheds, many of which are at present in anything but a sanitary condition."

In the report on Ellesmere Rural District there is no reference whatever to the inspection of dairies and cowsheds.

In Oakengates Urban District there are 21 persons registered under the Dairies, Cowsheds and Milkshops Order, but no information is given as regards any inspection that has been made. Dr. Cranstoun, referring to the Dairies, Milkshops, Cowsheds, etc., in the Borough of Ludlow, says : "These have all been properly inspected during the year. The cowsheds and their general sanitary surroundings are still capable of improvement." No details are given with regard to the amount of inspection or the steps taken to improve the defective conditions.

In Bridgnorth Borough the dairies are 22 in number and a general statement is made that the factories, workshops, bakehouses, dairies and slaughterhouses have been inspected and found in a satisfactory sanitary condition.

In Wellington Urban District the cowsheds have been the subject of a special report by the nuisance inspector. Several of them want re-modelling to bring them up to a satisfactory standard as regards cubic space, lighting, ventilation and drainage.

In Cleobury Mortimer Rural District Dr. Whitaker says very litle milk is sold so as to bring the cowkeepers under the Dairies Order.

The only district that has adopted regulations during the year, so far as I am aware, is the Borough of Wenlock. The rural districts of Oswestry, Wem and Drayton have the adoption of regulations under their consideration.

It is obvious from the above description that the inspection is not such as will ensure a pure milk supply, although there seems to have been some improvement on past years. In order to conduct a satisfactory inspection, it is necessary to have clearly in one's mind the ideals to be aimed at as regards structural conditions, and the minimum which must be enforced.

With regard to the various matters which bear upon the collection, storage and transit of milk it is very desirable that leaflets be printed containing the precautions that are necessary to obtain a pure and wholesome milk and that these leaflets be left at the farms and explained to those engaged in this work.

One of the sections in the Model Regulations is to the following effect : "Every person following the trade of a cowkeeper or dairyman shall provide for every dairy and cowshed in his occupation an adequate water supply of good quality, and proper for the health and good condition of the cattle therein."

The importance of this matter from a cowkeeper's point of view has been brought prominently before the public by a recent legal decision. Damages were claimed and obtained from a dairy company on account of the death of one of their customers from typhoid fever. The disease was attributed to milk and the milk was supposed to have been infected from a well on the farm known to be polluted. The principle laid down by the judge was "that if a purveyor of food sold food which did cause injury, he was liable for damages in respect thereof." A purveyor of milk therefore is liable for damages in respect of any disease caused by his milk, when the causation can be proved. The examination of the water supply is an important part of these inspections, and those cases, where there is some suspicion on account of the situation of the wells, a careful chemical examination should be made.

With regard to the inspection of dairy cattle nothing is being done in the county with the exception of occasional inspection by the officials of the large towns to which milk is sent. Five notifications have been received from the City of Liverpool concerning tuberculous milk from this county. The following paragraphs from my quarterly reports gives particulars of these cases :—

Report for 1st quarter, 1904.—Two notices have been received from the Corporation of Liverpool that tuberculous milk was being sold in that city from farms situated in this county. In one case two animals were found with every indication of being affected with tuberculosis of the udder and an order has been made prohibiting the sale of this milk in Liverpool. In the other case two suspicious cows were voluntarily isolated and milk from them not sold. Both farms are situated in Drayton Rural District. I have communicated with the Clerk and I think that such measures as are possible will be taken to prevent the sale of tuberculous milk in the county from these farms. I wrote to Liverpool for copies of the Veterinary Inspectors' reports. The lighting and ventilation of the cowsheds at both farms is condemned, and one of them is described as very dirty. Neither farm is said to be visited by any officer of the Local Sanitary Authority.

Report for 2nd quarter, 1904.—I have received communications from the City of Liverpool that milk from three farms in Shropshire had been found to be contaminated with tubercle. The farms were situated in the rural districts of Atcham, Ellesmere, and Oswestry. In each case I communicated with the Clerk to the District Council. In one instance only (Atcham) was an order made by the Corporation of Liverpool, prohibiting the sale of milk in that city. On inquiry I found that the sale of milk from this farm was only temporary, and had been given up entirely. The Ellesmere farmer has satisfied the Liverpool Authorities that he is taking proper precautions. With regard to the Oswestry farm, I have not received a copy of any Order made, so presumably satisfactory precautions have been taken. The Atcham and Oswestry farms are reported as being in an insanitary condition, and it is mentioned that they are not visited by any officer of the sanitary authority.

This question of a pure milk supply is a matter of vital consequence to the large towns, and unless the inspection of cowsheds and of dairy cattle by local authorities is done in a very different manner from what is has been done in the past, we may expect to see the inspection by officials from the towns become general throughout the country. As stated above there is no inspection of dairy cattle by the authorities of this county. Yet it is now perfectly established that the milk of cows with tuberculous udders may give tuberculosis to human beings, and that by inspection a large proportion of these can be eliminated from the herds.

Dr. Whitaker in his report on Shifnal, referring to tuberculosis, says: "There are no opportunities yet available in this county for testing the milk which is sold, in order to determine how far the danger may be there, though such tests are very desirable." If such examinations would be followed up by veterinary inspection of the cattle, from which the milk has come and with isolation of the dangerous animals, I should strongly advise the county council to provide facilities for examination as in other infectious diseases. Examination, however, if not followed up by proper action would be useless. I would advise that the districts of the county be notified that they may submit to Birmingham University samples of milk for examination for tuberculosis, on the understanding that proper subsequent action is taken and that the county council be notified of such action.

It seems to me that the real solution of this problem, although at present the law does not permit of it, is to place the inspection of dairy cattle under the County Council. It is possible that it might be efficiently worked in conjunction with the inspection under the Contagious Diseases Animals Acts.

INSPECTION.

On Table V. are given the particulars of inspection. In my 1902 and 1903 reports I have called attention to the small amount of inspection in the Wellington Rural District and the Wem Rural District. In the Wem Rural District there has been some improvement and the Medical Officer of Health says: "By the end of the present year we hope to have made a thorough house-to-house inspection, when a more full report can be made upon house accommodation."

In the Wellington Rural District the inspection shews practically no improvement. From recent inspections I have made in the Hadley district I am strongly of opinion that a more frequent house-to-house inspection is necessary.

At Whitchurch assistance has been given to the Inspector of Nuisances so that now he is in a position to properly cope with the work. At Oakengates the posts of Nuisance Inspector and Surveyor have been separated and separate officials who give their whole time to the work, appointed. Dr. Gepp recommends an assistant inspector for Shrewsbury, and considering the great desirability of making a continuous house-to-house inspection, and the large amount of new work under the Factory and Workshops Act, if the inspection is to be done efficiently, there can be no doubt as to the advisability of making this appointment.

FACTORY AND WORKSHOP ACT, 1901.

SUMMARY FOR 1904.

Urban Districts.	Number of Workshops on Register.	Number of Inspections.	Written Notices sent.	Defects from						Failure to fix Abstract of Act.	Representations from H.M. Inspector.	Number of Underground Bakehouses.	Lists of Outworkers received.	Remarks.
				Want of Cleanliness.	Want of Ventilation.	Overcrowding.	Defective Sanitary Accommodation.	Breach of Sanitary Requirements of Bakehouses	Other defects.					
BISHOP'S CASTLE..	35	66	..	..	0	0	0	0	0	..	..	..	..	
BRIDGNORTH ...	107	..	..	..	..	..	..	..	..	..	..	..	..	They have been inspected and found in a satisfactory Sanitary condition.
CHURCH STRETTON	15	35	..	..	..	..	..	..	..	..	..	..	..	
DAWLEY	38	79	15	..	1	..	..	10	4	1	1	..	1	
ELLESMERE ..	..	..	..	..	..	..	..	..	..	..	..	..	..	The Act has very little application; a register is kept and the places have been inspected.
LUDLOW	59	..	..	..	2	..	..	..	..	..	..	0	..	Workshops and Workplaces are clean and with sufficient air space.
NEWPORT ..	77	14	0	..	..	..	..	..	..	..	..	1	..	
OAKENGATES ..	60	..	..	..	..	..	..	..	..	..	..	..	..	The Register is not yet kept entered up, nor has any routine work been initiated.
OSWESTRY ..	103	50	7	3	2	3	..	1	..	..	..	..	..	
SHREWSBURY...	224	180	5	..	..	3	1	2	..	..	5	2	..	The Register is not yet complete.
WELLINGTON ...	70	..	..	..	..	..	..	..	..	..	..	..	..	Some of the Bakehouses are defective in lighting, ventilation, or general cleanliness. Many of the workshops have been visited regularly and found satisfactory.
WEM	53	540	0	..	0	0	0	0	0	..	..	..	1	
WENLOCK ..	76	58	11	11	..	1	1	..	..	..	1	1	0	
WHITCHURCH ..	75	128	..	6	4	1	1	..	..	..	..	..	..	

Rural Districts.	Number of Workshops on Register.	Number of Inspections.	Written Notices sent.	Defects from						Failure to fix Abstract of Act.	Representations from H.M. Inspector.	Number of Underground Bakehouses.	List of Outworkers received.	Remarks.
				Want of Cleanliness.	Want of Ventilation.	Overcrowding.	Defective Sanitary Accommodation.	Breach of Sanitary Requirements of Bakehouse	Other Defects.					
ATCHAM ..	68	75	8	7	..	..	..	2	..	..	..	..	..	
BRIDGNORTH ..	..	..	..	..	..	..	..	..	..	..	..	..	..	The workshops have been visited and found sanitary.
BURFORD ..	2	..	..	..	..	..	..	..	..	..	..	..	..	Only two small bakehouses come under the Act.
CHIRBURY ..	..	0	..	..	..	..	..	..	..	..	..	..	..	
CHURCH STRETTON	26	52	..	..	..	..	..	..	..	..	..	..	..	
CLEOBURY MORTIMER ..	..	..	..	..	..	..	..	..	..	..	..	..	..	The Act has little application; the few places that come under it are inspected and dealt with.
CLUN	73	60	..	..	..	..	..	..	1	..	..	..	..	
DRAYTON ..	104	34	0	..	1	..	..	..	5	..	..	1	0	
ELLESMERE ..	54	..	..	..	..	..	..	..	..	..	..	..	..	All the places have been inspected and for the most part found satisfactory.
LUDLOW ..	19	..	..	..	..	..	..	..	..	..	..	..	..	In some of the older bakehouses the floors are badly constructed and not efficiently drained.
NEWPORT ..	15	15	..	..	..	..	..	..	..	..	..	..	..	
OSWESTRY ..	67	67	..	6	..	..	..	..	1	..	1	..	..	
SHIFNAL ..	..	..	..	..	..	..	..	..	..	..	..	..	..	A Register is kept and the places visited.
TEME	2	2	..	..	..	..	..	..	..	..	..	..	..	
WELLINGTON ..	22	..	..	..	..	..	..	..	..	..	..	..	..	Little or nothing has been done during the year.
WEM	12*	..	..	..	..	..	..	..	..	..	..	..	0	The bakehouses have been visited and found satisfactory.
WHITCHURCH..	10	20	1	1	..	..	..	..	..	..	..	..	..	

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* This is the number of bakehouses.

Record of Sanitary Work done during the Year 1904.

Table showing the work done by the various Sanitary Inspectors; the Returns are made on a uniform plan as far as possible.

SANITARY AUTHORITY.	Number of Houses which have been Inspected during the year, either in connection with outbreaks of Infectious Disease, or in consequence of complaints, or in course of a systematic Sanitary Survey.	Total Number of Notices of all kinds served, including both formal and informal Notices.	Number of such Notices complied with.	Particulars of Sanitary Matters referred to in the above Notices.								Number of cases in which proceedings before Magistrates have been taken for failure to comply with any of the above Notices.	Proceedings taken before Magistrates with reference to			Letters Written.
				Houses disinfected after Infectious Disease.	Deficient or objectionable Water Supply.	New Drains to be constructed or old Drains to be amended.	New Closets to be provided or old ones to be amended in construction.	Houses damp, dirty, or admitting rain or weather or otherwise in a bad Sanitary condition.	Offensive accumulations of all kinds.	Animals so kept as to be a Nuisance.	Houses Overcrowded.		Exposure of Bad Meat for Sale.	Public Exposure of Infected Persons or things.	Offences against By-Laws and Regulations relating either to Lodging Houses, Slaughter Houses, Dairies and Milkshops, &c.	
RURAL DISTRICTS.																
Atcham	1355	237	166	43	22	46	66	34	24	5	5	2	..	..	..	357
Bridgnorth	2009	111	95	5	45	72	33	8	11	..	1	..	..	..	..	300
Burford	35	4	4	2	1	..	1	..	..	..	..	..	..	..	..	7
Chirbury	511	94	62	7	6	16	12	4	25	..	1	..	..	..	..	..
Church Stretton	613	26	22	..	3	19	5	2	..	..	1	..	..	..	..	121
Cleobury Mortimer	238	15	..	17	7	10	9	16	3	1	3	..	..	..	..	..
Clun	120	15	13	16	5	7	4	2	..	..	..	..	..	..	..	18
Drayton	594	293	201	18	71	54	22	2	118	5	3	..	..	..	..	..
Ellesmere	420	56	50	14	4	15	11	8	3	1	1	1	..	..	..	..
Ludlow	150	40	31	20	..	10	15	6	10	12	10	..	..	..	..	..
Newport	400*	82	70*	36	3	23	8	..	10	..	2	..	..	..	..	..
Oswestry	500	83	68	18	..	10	..	3	30	3	..	..	..	..	..	65
Shifnal	609	195	195	11	3	5	10	6	153	1	6	..	..	..	..	274
Teme	40	28	28	2	..	18	2	5	..	..	1	..	..	..	..	..
Wellington	110	18	18	46	3	13	7	..	..	..	1	..	..	..	..	11
Wem	353	174	123	20	208	65	6	21	29	2	7	..	..	..	..	159
Whitchurch	145	51	38	..	25	5	16	3	2	2	2	1	..	..	..	44
URBAN DISTRICTS.																
Bishop's Castle	230	25	21	..	..	..	2	..	23	..	..	..	..	..	..	..
Bridgnorth	1000	7	All	10	3	6	5	10	12	4	..	..	..	..	..	25
Church Stretton	294	15	14	..	6	..	..	..	9	..	..	..	..	..	..	27
Dawley	1032	568	559	11	..	79	35	38	376	5	7	..	..	..	..	580
Ellesmere	655	36	36	..	..	5	6	..	22	1	2	..	..	..	..	28
Ludlow	170	44	35	0	16	18	14	2	2	4	..	..	..	..	..	41
Newport	362	5	5	19	..	5	7	..	886†	..	2	..	..	..	..	35
Oakengates	409	117	107	81	9	19	78	14	3	8	4	1	..	..	..	..
Oswestry	1600	133	120	9	..	64	57	19	9	2	..	..	..	..	..	12
Shrewsbury	1683	798	783	67	49	238	117	74	219	13	21	..	..	..	..	82
Wellington	..	86	78	21	..	14	14	13	4	..	2	..	..	..	..	88
Wem	912	34	32	10	..	27	29	5	902†	11	2	..	..	..	..	30
Wenlock	988	345	229	..	10	81	67	53	158	11	3	2	..	..	..	267
Whitchurch	670	167	148	21	4	91	96	39	56	2	1	..	..	..	..	150

* Approximate. † Including Public Scavenging

FACTORIES AND WORKSHOPS.

The details with regard to the inspection of factories and workshops in most of the districts are given in Table IV. In some of the districts, however, no details are given.

I would refer to my remarks under tuberculosis as to the importance of thorough inspection.

SALE OF FOOD AND DRUGS.

The County Chief Constable has furnished me with particulars of samples taken during the year 1904 by the County Police.

Return shewing number, description, and result of Analysis of Samples taken under Food and Drugs Act in the County during year ended 31st December, 1904.

Nature of Sample	No. of Samples take for Analysis.	Results.		Remarks.
		Genuine.	Adulterated.	
Whisky	5	5	..	
Brandy	5	4	1	Vendor convicted.
Rum	2	2	..	
Gin	2	2	..	
Beer	36	36	..	24 of the samples contained traces of Arsenic not exceeding $\frac{1}{100}$th of a grain per gallon.
Stout	1	1	..	
Butter	23	23	..	
Lard	20	20	..	
Ginger	15	15	..	
Pepper	16	16	..	
Coffee	14	13	1	Case dismissed on payment of costs.
Milk	43	40	3	1 ordered to pay costs, 1 withdrawn on payment of costs, and 1 dismissed.
Cheese	7	7	..	
Mustard	4	3	1	No proceedings taken, protected by label
Oatmeal ..	14	14	..	
Arrowroot ..	3	3	..	
Raspberry Jam	1	1	..	
Flour	2	2	..	
Cocoa	1	..	1	No proceedings taken, protected by label
Cayenne Pepper	1	1	..	
Cinnamon ..	1	1	..	
Vinegar	1	1	..	
	217	210	7	

Seventeen samples were taken in the Borough of Shrewsbury and all proved to be genuine. Twenty-two samples were taken in the Borough of Wenlock, of which two of milk and one of beer proved to be adulterated.

The number of samples of milk and butter have been increased, but I still do not consider them adequate in number. No samples appear to have been taken with the object of checking the excessive use of preservatives. There can be no doubt that apart from the injurious action of the preservatives themselves, the continued consumption of preserved foods instead of fresh foods is distinctly injurious. Most foods, especially all kinds of dairy produce, should be sold fresh, clean and free from preservatives. It is possible, that there is not much abuse in this county, but so far as I am aware, we have no definite facts to base an opinion on. In my report for last year I advised, that samples of various foods be taken for this purpose, including milk, butter, cream, jam, potted meats and fish, and that proceedings be instituted in those cases, where preservatives are used in such a manner that injury to health may result. No doubt the law on this matter is in an unsatisfactory condition and there would necessarily be some uncertainty as to the result, but as the primary object of the Food and Drugs Act is to guard the health of the people, these risks should be taken.

A considerable number of samples of beer were examined for arsenic, but although a large proportion contained small traces, none of them contained as much as one-hundredth of a grain per gallon. I am of opinion, that from time to time samples of beer for this purpose should be taken and that those beers be selected which are brewed from gas coke. I have reason to believe that gas coke is still used notwithstanding the recommendation of the Royal Commission, and the notices, which I sent out last year drawing the attention of all brewers and maltsters to this matter.

RAINFALL.

The rainfall particulars I have mostly obtained from the various observers, who at considerable trouble to themselves have very kindly furnished me with full details.

STATIONS.		RAIN GAUGE.				DEPTH OF RAIN.		DAYS ON WHICH .01 OR MORE RAIN FELL.	
		Diameter	Height. above ground.		Height above sea level	1903	1904	1903	1904
		inches.	ft.	in.	feet.	inches.	inches.		
Ludlow	(Ashford)	5	1	2	265	36·36	..	212	..
,,	(Ashford House)	5	0	5	315	41·29	25.08	217	183
,,	(The Sheet)	5	1	0	370	43·28	..	205	..
Bromfield	(Priors Halton)	5	3	0	300	43·69	..	206	..
,,	(Oakly Park)	5	1	0	300	40·07	24·55	237	213
,,	(Vicarage)	5	1	0	300	41·04	24·54	209	177
Clunbury Vicarage	..	5	1	0	497	40·71	26·14	196	163
Craven Arms	(Stokesay Vicarage)	5	1	0	371	40·72	24·13	205	166
Bishop's Castle	(Totterton)	5	0	7	700	41·20	..	..	..
,,	(Castle Street)	5	2	0	720	37·87	26·87	208	178
,,	(Lydham Manor)	8	1	6	740	39·15	24·38	..	..
,,	(Moore Rectory)	6	1	0	600	38·77	24·89	..	193
Bridgnorth	(Coton Hall)	5	[illegible]	0	460	34·71	23·89	200	155
Church Stretton	(Rev. R. P. Dansey)	5	1	0	645	47·73	28·71	232	202
Bridgnorth	(Hookfield House)	5	0	11	273	35·06	22·11	232	206
,,	(Cantreyn Bank)	6	3	9	320	40·31	19·48	176	142
,,	(Aldenham Park)	5	3	9	430	33·98	..	189	..
Church Stretton	(Preen Manor)	5	1	0	700	36·41	23·51	190	166
,,	(Woolstaston)	5	1	0	800	43·57	26·66	240	201
Much Wenlock	(Willey Park)	5	1	0	502	37·75	23·68	206	184
Pontesbury	(Somerville)	5	1	6	355	35·16	22·23	191	152
Minsterley	(Hampton Hall)	..	1	0	630	45·90	29·34	..	..
,,	(Wallop)	8	1	6	700	53·48	33·9	223	181
Shifnal	(Hatton Grange)	5	4	4	251	32·80	22·86	236	..
,,	(Neachley)	5	1	6	280	33·97	..	211	..
,,	(Haughton Hall)	5	3	0	355	33·89	23·64	181	158
Shrewsbury	(The Abbey House)	8	1	3	171	30·29	20·33	184	173
,,	(Highfield)	5	4	6	250	33·23	21·11	180	171
,,	(Roden)	8	1	0	209	33·07	23·21	192	148
,,	(Fitz Rectory)	5	1	2	238	35·30	24·77	247	215
,,	(Fitz Manor)	5	1	4	253	35·09	24·30	224	185
Newport	(Ashton Hall)	5	0	9	280	34·51	21·73	209	176
,,	(Agricultural College)	..	1	0	210	30·84	20·17	193	173
,,	(Edgmond)	8	1	0	261	33·41	22·01	208	193
Wem	(The Rectory)	..	1	0	270	34·13	23·30	260	222
Cheswardine	(Knighton Res.)	8	0	3	351	36·19	..	217	..
Oswestry	(The Mount Reservoir)	5	1	0	698	57·97	30·15	214	175
Market Drayton	(Buntingsdale)	8	3	0	276	36·04	26·44	..	..
Ellesmere	(The Grange)	5	0	10	..	40·34	25·88	182	160

	WOOLSTASTON RECTORY, SALOP.				THE ABBEY HOUSE, SHREWSBURY.				THE RECTORY, WEM.			
	RAIN GAUGE Diameter of Funnel, 5 inches. Height of Top: Above Ground, 1 ft. Above Sea Level. 800 ft.				RAIN GAUGE Diameter of Funnel, 8 inches. Height of Top. Above Ground, 1ft. 3in. Above Sea Level. 171ft.				RAIN GAUGE Diameter of Funnel. 5 inches. Height of Top: Above Ground, 1 ft. Above Sea Level, 270 ft.			
MONTH.	Total Depth.	Greatest Fall in 24 hours.		Number of days. on which .01 or more Rain fell.	Total Depth	Greatest Fall in 24 hours.		Number of days on which .01 or more Rain. fell.	Total Depth.	Greatest Fall in 24 Hours.		Number of days. on which .01 or more Rain. fell.
	Inches.	Depth.	Date		Inches.	Depth.	Date.		Inches.	Depth.	Date.	
January ..	3·13	·45	13	25	2·07	·22	30	22	2·52	0·25	13	24
February .	4·08	·42	9	24	3·05	·42	9	22	3·13	0·31	7	24
March ..	1·57	·36	7	21	1·45	·18	7 & 14	20	1·59	0·21	13	18
April ..	1·64	·35	22	16	1·02	·24	22	15	0·87	0·13	3	18
May ..	2·27	·39	1	17	2·27	·36	26	17	1·99	0·48	1	23
June ..	1·17	·40	1	11	·97	·30	1	10	1·02	0·17	1 & 9	13
July ..	3·06	2.48	25	14	1·24	·75	25	8	2·48	0·99	25	20
August ..	3·19	·70	3	16	3·43	·93	17	13	4·60	1·36	17	15
September	2·12	·72	12	12	1·52	·45	12	8	1·62	0·45	12	14
October ..	·70	·22	15	14	·38	·10	8	8	0·76	0·19	7 & 8	15
November.	1·20	·30	21	11	1·17	·32	6	13	1·12	0·27	21	14
December	2·53	·70	5	20	1·76	·27	5 & 13	17	1·60	0·26	9	24
TOTAL .	26·66	..	..	201	20·33	..	..	173	23·30	..	..	222

MIDWIVES ACT.

Although the Midwives Act has been in force since April, 1903, it was not until considerably later that the Central Midwives Board issued their rules and not until the latter part of last year that systematic inspection of midwives in this county was commenced.

The Sanitary Committee of the County Council was constituted the Local Supervising Authority and the County Medical Officer was appointed the Executive Officer. The first step taken was to advertise the Act as thoroughly as possible throughout the county. It was of great importance that this should be done thoroughly, as women who had been in practice for one year previous to the passing of the Act had a right to be registered, if they applied before the 1st of April of this year. As there are still a certain number of women who have not registered either through ignorance or carelessness, I will briefly recapitulate the steps that were taken to make the Act known.

In the middle of 1903 all the medical men in the county were circularised and asked for the names and addresses of known midwives. A circular was then sent to each address. This was repeated towards the end of 1904. Advertisements were put in the local papers in 1903 and again early in 1905. Notices were drawn up and sent to all the police stations and to all the relieving officers in the county. In those districts where, in proportion to the population, few women had registered, personal inquiries were made and advice given where necessary

The number of women who had, up to June 21st, 1905, sent me notice of their intention to practise in this county was 236. Of these, 8 live out of the county and 5 have since notified me that they have left or given up practice. Of the 231 midwives now practising in the county only 43 are known to have any certificates in midwifery. Eleven others have had a certain amount of training in workhouses.

The remaining 177 midwives, with perhaps a few exceptions amongst those who have only recently sent in their notifications and have not yet been visited, have had no training whatever.

Amongst the midwives there are 31 who cannot even sign their names and about 21 others, who cannot write sufficiently well to keep their registers.

The ages of the midwives on the roll is of some importance, as giving an indcation as to the numbers that are likely to give up the work during the next few years. The ages of all of them have not yet been ascertained, but roughly speaking, 45 are over 60 years of age and 75 between 50 and 60.

MIDWIVES IN SANITARY DISTRICTS.

Rural District of	Number of Midwives.	Number of Midwives per 10,000 population.	Urban District of	Number of Midwives.	Number of Midwives per 10,000 population.
Atcham	22	11	Bishop's Castle	2	15
Bridgnorth	12	14	Bridgnorth	3	5
Burford	1	8	Church Stretton	1	9
Chirbury	6	17	Dawley	7	9
Church Stretton	3	7	Ellesmere	1	5
Cleobury Mortimer ..	4	6	Ludlow	3	5
Clun	11	16	Newport	6	18
Drayton	14	12	Oakengates	6	5
Ellesmere	6	8	Oswestry	4	4
Ludlow	10	10	Shrewsbury	19	7
Newport	3	5	Wellington	3	4
Oswestry	24	16	Wem	5	23
Shifnal	14	16	Wenlock	14	9
Teme	4	21	Whitchurch	5	10
Wellington	8	7			
Wem	8	10			
Whitchurch	2	10			

This table is particularly important as showing the districts in which trained midwives are required.

The County Council has, through the Technical, now Higher Education Committee, for some years paid for the training of a certain number of midwives, averaging about five each year, at a cost of about £35 each midwife. The training given has been usually three months at a lying-in hospital and three months as a district nurse. Since the Act came into force the training has practically been confined to midwifery.

In the future it will be advisable to consider not only the suitability of the candidates but also the part of the county in which they intend to practise.

The supply of midwives is a matter that will require very careful consideration, as it is very unlikely that the present sources will be found sufficient in the future.

There is considerable misunderstanding about the disabilities of those midwives who are not on the roll. The following section of the Act sufficiently defines their position :—

1.—(1) From and after the first day of April, one thousand nine hundred and five, any woman who not being certified under this Act shall take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition, or description implying that she is certified under this Act, or is a person specially qualified to practice midwifery, or is recognised by law as a midwife, shall be liable on summary conviction to a fine not exceeding five pounds.

(2) From and after the first day of April, one thousand nine hundred and ten, no woman shall habitually and for gain attend women in childbirth otherwise than under the direction of a qualified medical practitioner unless she be certified under this Act; any woman so acting without being certified under this Act shall be liable on summary conviction to a fine not exceeding ten pounds, provided this section shall not apply to legally qualified medical practitioners, or to any one rendering assistance in a case of emergency.

The duties of the Local Supervising Authority, as laid down by the Act, are compulsory. It shall be the duty of the Local Supervising Authority :—

(1) To exercise general supervision over all midwives practising within their area in accordance with the rules to be laid down under this Act.

(2) To investigate charges of malpractice, negligence, or misconduct, on the part of any midwife practising within their area, and should a primâ facie case be established, to report the same to the Central Midwives Board.

(3) To suspend any midwife from practice, in accordance with the rules under this Act, if such suspension appears necessary in order to prevent the spread of infection.

(4) To report at once to the said Board the name of any midwife practising in their area convicted of an offence.

(5) During the month of January of each year to supply the secretary of the Central Midwives Board with the names and addresses of all midwives who, during the preceding year, have notified their intention to practise within their area, and to keep a current copy of the roll of midwives, accessible at all reasonable times for public inspection.

(6) To report at once to the Central Midwives Board the death of any midwife or any change in the name or address of any midwife in their area, so that the necessary alteration may be made in the roll.

(7) To give due notice of the effect of the Act, so far as practicable, to persons at present using the title of midwife.

For carrying out the above provisions certain information is necessary which the Act does not give us power to obtain. To get over this difficulty the following arrangements have been made :—

(1) The county and borough police have kindly undertaken to notify me of any death following confinement upon which an inquest is to be held.

(2) The district medical officers have undertaken to notify me of cases of puerperal fever.

(3) The registrars of births and deaths are to be requested to forward me a copy of the certificate of death of any midwife who may die in the county.

For the purpose of carrying out sub-sec. (4) it will be necessary to ask the proper authority to notify me of any midwife convicted of an offence.

It became very evident, especially after the rules were issued by the Central Midwives Board, that careful and frequent inspection of the midwives would be necessary. It was a little difficult to form an idea as to the amount of labour that this would entail, but as a basis to work upon I estimated that about 200 midwives would register and that they should be inspected not less than once a quarter. A qualified nurse (Miss Frith), also holding a certificate in midwifery, was appointed to act as a Health Lecturer under the Higher Education Committee and to carry out the routine inspection of midwives under my supervision. She commenced her work in October of last year and although most of the work has hitherto been of a preliminary character there is every reason to think that this arrangement for inspection will work very satisfactorily. In the year 1904 Miss Frith was engaged to a considerable extent in clerical work in connection with the Midwives Act, and in lecturing for the Higher Education Committee. She also inspected 69 midwives living in the following neighbourhoods: Shrewsbury, Wem, Oswestry, Shifnal, Wellington, Oakengates, Dawley, Market Drayton, Ellesmere, Baschurch, Much Wenlock, Broseley, Bridgnorth and Craven Arms. Since that time she has visited practically all the midwives of the county and some of them two or three times.

At present the work of the inspector is to a considerable extent educational. This educational work consists of two branches :—

(1) Teaching the untrained women how to conduct their work without danger to their patients.

(2) Showing them how to fulfil their obligations under the Act.

The first of these will remain one of the most important functions of the inspector so long as there are any untrained women on the roll. Whether it is advisable to organise lectures for their benefit is worthy of consideration.

To explain the meaning of the rules to ignorant women is by no means a simple matter. Some of the rules have evidently been drawn up for the regulation of the practice of trained midwives only, and are quite incomprehensible to most of the untrained women. As any attempt to enforce the rules referred to would be a distinct danger, I would suggest with regard to these, that a representation be made to the Central Midwives Board pointing out this danger and suggesting that when the rules are altered, some discretionary powers should be given to Local Supervising Authorities to meet these cases.

Although Miss Frith is making the regular routine inspection, I take every opportunity of making myself personally acquainted with the conditions under which the midwifery practice in the county is carried on. Besides these inspections, which are more or less of a routine character, I have made personal inquiries into all cases of serious irregularities and into cases in which infection is likely to be spread by midwives. On no less than four occasions it has already been necessary to suspend midwives for varying periods on account of breaches of rules and to prevent the spread of infection. In two instances it was only the fact that the Act had recently come into operation and was as yet not properly understood that prevented me from reporting to you as the Local Supervising Authority under sec. (8) (2) of the Act in order that you might investigate and report if necessary to the Central Midwives Board. Only one of these four cases comes strictly within the period (1904) dealt with in this report.

From the onset I have insisted that whether the women are illiterate or not, the register must be properly kept and all entries sent as prescribed by the rules.

I have laid great stress upon the importance of midwives wearing washable dresses and of carrying out rigidly the rules of cleanliness.

The majority of midwives show a willingness to learn and to conform to the rules. A considerable number, however, have had to be warned for breaches of rules and no doubt in most instances this warning will prove sufficient.

I have had startling evidence that many of the trained midwives require supervision as much as untrained ones, although for different reasons. Two of the four midwives who have been suspended were trained and had certificates from recognised Institutions, yet both were guilty of culpable neglect.

The more I see of the working of this Act the more I am convinced that a great amount of good will result. Primarily the object of the Act is to protect the life and health of the mothers, but it will undoubtedly result in many infant lives being saved which are now lost through ignorance, and neglect to call in medical help. I intend to draw up for the guidance of midwives a short notice explaining certain of the rules and giving directions as to cleanliness, the use of antiseptics, etc.

I think it will be possible too, to utilise midwives in promulgating correct ideas with respect to the feeding of infants. The most practical method that suggests itself is to draw up some short simple rules, explain them carefully to the midwives and get them to see that they are put in practice in the houses where they attend. Sufficient copies might be supplied for them to leave one at every house.

If it is correct, as has been stated, that 60% of the confinements throughout the Kingdom are attended by midwives and that these women are mostly untrained or very partially trained, the great influence, that this Act may have, will be readily understood, and also the extreme importance of making the inspection as efficient as possible.

Part II.

Abstracts, etc., of Annual Reports of the Medical Officers of Health for the Various Districts.

ATCHAM (Rural).

Medical Officer of Health ..	M. Gepp, L.R.C.P.E., D.P.H.
Area in acres	125,207
Population *at* 1901 *Census*	20,895
Number of inhabited houses ,, ...	4,329
Number of persons per house ,, ...	4.8

General Character of the District ,.

"The District is a very large one, some 22 miles in length by some 14 in extreme breadth, its area being 125,207 acres. The River Severn runs through it from North-West to South-East dividing it into two parts, of which the Northern and smaller part is continuous with the Midland plain, on the New Red Sandstone. The general elevation of this part is from 200 to 300 feet, O.D. The Southern and larger part is more elevated, rising gradually from the river, Southward and Westward, from 200 to some 600 feet, O.D., with considerably greater elevations on the hillsides forming the western and southern borders. The Geological formation of this part is broken and diverse. The hills are the outliers of the Cambrian and Silurian ranges of Wales and Shropshire, and these formations project into the District. There are also detached but considerable exposures of the Coalmeasures, and of the Permian Red Sandstone. There is in both parts a variable, but generally considerable, thickness of drift overlying the strata. The drainage is on both sides to the Severn, by numerous small tributary streams. The Borough and County town of Shrewsbury lies nearly in the centre of the District."

"The District is entirely rural in character, for the most part fertile and highly cultivated, and supporting a comparatively large agricultural population, distributed in numerous important villages, in smaller hamlets, and largely also in scattered isolated dwelling houses. The density of population is equal to about 108 persons to the square mile. A few coal mines are worked around Hanwood, but many parts of the small coalfields are abandoned."

Statistics.

The natural increase during the year was 104. The population is estimated at the middle of 1904 to be 20,840, and corrected for public institutions, 19,870.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart-Diseases	Cancer.		
1904	14.4	1.4	.35	.75	.35	1.6	2.3	1.06	87	25.9
Averages for years 1895-1903	15.0	.65	..	..	..	..	..	..	89	24.7

The zymotic rate was due to 1 death from smallpox, 3 from measles, 20 from whooping cough, 3 from diphtheria, and 1 from diarrhœa.

Infectious Disease.—4 cases of smallpox, 66 of scarlet fever, 20 of diphtheria, 3 of enteric fever, 3 of erysipelas, were notified. The cases of smallpox have already been reported on. The first case was imported, the disease having been mistaken for chicken pox. Two occupants of the house took the disease, and notwithstanding the precautions taken the infection was introduced in some unknown way into the County Asylum, and two cases resulted. In the absence of an isolation hospital at the Asylum these were treated in a disused cottage. The scarlet fever cases were isolated ones except at Bicton, where 31 cases involving 15 houses occurred. After a notification in April, Dr. Gepp visited the absentees from the school, and finally came to the conclusion that 14 of them were suffering from scarlet fever. The Bicton School was closed from April 26th to June 6th. This shows the desirability of efficient medical inspection of school children. The diphtheria cases occurred principally at Alberbury (apparently endemic), Plealey, (two fatal cases probably spread by unrecognised cases), Bomere Heath (obscure), Kenley (associated with sore throat in school).

There were 35 closures of Schools under the Medical Officer of Health's certificate.

Dr. Gepp refers to his previous remarks on the County Council organising a systematic medical inspection of school children.

Hospital Isolation.—A retaining fee is paid to secure the prompt dispatch of a tent in case of smallpox. The Council also have a *Berthon* hut and a small tent. Dr. Gepp thinks a site should be obtained, fenced, drained, and supplied with water and a caretaker's cottage built. Pulley Common is suggested as a suitable site.

Disinfection.—Mostly by the Sanitary Inspectors. A portable steam disinfector has been obtained.

Vaccination.—Primary vaccination is good. In 1903 there were 1232 births, 1,062 successful vaccinations, 105 died unvaccinated, and the others were mostly accounted for by postponement and removal ; 5 conscientious objectors.

House Accommodation.—A second sanitary inspector has been appointed, and each is engaged in a house to house inspection. The district is divided into two parts, and 883 houses have been inspected. Proceedings for closure were taken with respect to one cottage. The Council is considering building bye-laws applicable to the whole district, whilst at the same time retaining the present more stringent ones for places of an urban character.

Sewerage and Drainage.—The Improvement of the *Meole* Sewage Works is recommended. At *Pontesbury* a good deal of the sewage is discharged direct into the brook. *Dorrington* village has two or three piped sewers discharging on meadow land. Manholes at the principal changes of direction are recommended. *Bayston Hill*—Plans are being got out for the provision of a septic tank and filter bed.

Excrement Disposal.—With few exceptions by privies with underground vaults. A number are dealt with every year but much requires to be done.

In Dorrington, where many defective privies are in confined situations, conversion to earth closets has been recommended.

Water Supply.—Dr. Gepp says that the structure and situation of most of the private wells yeilding subsoil water is radically objectionable, and that in the majority of instances the water could be made practically safe by improving the structure of the wells, at a cost of £8 13s. 4d. or less. He recommends that action be taken under Sec. 3 of the Public Health (Water) Act, 1878.

A boring is to be made at *Pontesbury Hill* as previously recommended. The scheme for supplying *Meole and Bayston Hill* was not sanctioned by the Local Government Board. The present supply from the colliery is not entirely safe and there is some shortness of water, the higher houses being without from time to time. The only suggestion is improvement of the colliery supply, which is under consideration. At Lyth Hill there is a local well of pure spring water which might be used for Bayston Hill, but unfortunately the yeild is only 4,600 gallons, or about sufficient for present needs.

Slaughter Houses.—12 on register—in special contributory areas—in fair condition.

Dairies and Cowsheds.—42 on register ; the regulations are being enforced.

BISHOP'S CASTLE (Urban).

Medical Officer of Health	M. GEPP, L.R.C.P.E., D.P.H.
Areas in acres	1,867
Population at 1901 *Census*	1.378
Number of inhabited houses „	354
Number of persons per house „	3.9

Physical Features and General Character of the District.

> " The Borough comprises 1,867 acres of agricultural land, and forms an area some three
> " miles in length, by a mean breadth of about 1 mile, having the small town of Bishop's Castle
> " about the centre. The elevation varies from about 500 feet O.D. in the valley at the south-
> " east end, to 1000 feet or more in the hill country forming the north-west end. The town lies on
> " a hill side rising out of the valley, the main street rising steeply from about 600 feet to 700
> " feet O.D., and the houses are placed on either side of the street, and about the crest of the
> " hill above it. The sub-soil is the Wenlock and Ludlow beds of Upper Silurian age. The
> " natural drainage is from north and west to south and east by small streams, the district
> " lying upon the watershed of the Teme. In the town some small streamlets have been
> " culverted about the foot of the hill, and are practically sewers. Outside the town proper,
> " the area is very sparsely populated. The town is a market town."

Statistics.

The natural increase of the population during the year was 14. The population at the middle of 1904 is estimated at 1,350, and corrected for public institutions, 1,330.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart-Diseases	Cancer.		
1904	9.8	.0	.0	.75	.0	3.0	2.2	.0	0	24.0
Averages for years 1897-1903 .	19.5	..	..	..	..	..	..	..	90	25.9

Infectious Disease.—The only notified cases were 3 of scarlet fever. The infant school was closed in February on account of influenza.

Hospital Isolation—no hospital, but the right to use an unoccupied cottage for smallpox.

Disinfection.—Disinfectants are supplied, but the disinfection is carried out by the owner or occupier.

House Accommodation is adequate in amount. Many are old and in poor condition, and being built of local limestone or sandstone are disposed to be damp. No house was closed during the year. Many of the back yards are without paving or chanelling. A house to house inspection is mentioned as the best means of keeping these houses in habitable condition.

Sewerage and Drainage.— The centre of the town is sewered on modern lines—ventilated piped sewers. There are also some stone road water drains acting as sewers. The sewage is conveyed by culverted streams, acting as inefficient sewage carriers to two or three points on almost level ground, where it is disposed of by irrigation on meadow land. Engineers have been instructed to prepare a scheme for the better disposal of the sewage.

Excrement Disposal—mostly by privies with underground vaults, scavenged by house occupiers. A sewerage system is very desirable as it would make it possible to call for the conversion of the objectionable privies to water closets. Public scavenging would be an advantage to the town.

Water Supply—upland surface water collected in a reservoir, piped to a surface reservoir and filtered through sand and gravel. There has been trouble from leakage from the storage reservoir. "The yield of water by the streams is sufficient for the needs of the town, but the reservoir does not permit of the storage for which it was intended."

4 slaughter houses, 1 common lodging house, and 4 cowkeepers are on the registers. The places are kept in accordance with the regulations. The sanitary inspector is of opinion that there are other cowkeepers who should be registered.

BRIDGNORTH (Urban).

Medical Officer of Health ..		J. C. PADWICK M.R.C.S., L.R.C.P.
Area in acres		3,018
Population	at 1901 *Census*	6,052
Number of inhabited houses	,, ...	1,300
Number of persons per house	,, ...	4.6

Statistics.

The natural increase of the population during the year was 16.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart-Diseases	Cancer.		
1904	17.2	.0	.0	1.98	.33	3.4	1.9	1.1	158	21.9
Averages for years 1894-1903	15.7	..	..	..	..	..	..	..	118	25·1

The birth-rate is the lowest since 1894.

Infectious Disease.

8 cases of scarlet fever, 1 of diphtheria, 1 of enteric fever, 1 of puerperal fever, were notified. All the cases of scarlet fever were removed to the isolation hospital. Phthisis is now a voluntarily notifiable disease. Disinfection is to be carried out after deaths from phthisis.

Influenza and catarrhal jaundice have been very prevalent.

Water Supply.—The public supply has been sufficient.

"The number of factories and workshops, etc., are as follows :—Factories 24, Workshops 92, Bakehouses 15, Dairies 22, Slaughter-houses 10. These have been inspected and found in a satisfactory sanitary condition."

BRIDGNORTH (Rural).

Medical Officer of Health	..	J. C. Padwick, M.R.C.S., L.R.C.P.
Area in acres	.. ..	70,521
Population	*at* 1901 *Census*	8,573
Number of inhabited houses	,, ...	1,886
Number of persons per house	,, ...	4.5

Statistics.

The natural increase of the population during the year was 118.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart-Diseases	Cancer.		
1904	15.2	1.7	.11	.58	.46	2.9	1.9	.46	91	26.9
Averages for years 1898–1903	13	..	..	..	..	..	..	..	106	26.1

The high zymotic mortality was due to 5 deaths from measles, 7 from whooping cough, 2 from diphtheria, and 1 from diarrhœa.

Infectious Disease.—7 cases of scarlet fever, 2 of diphtheria, 1 of erysipelas, and 1 of enteric fever were notified. Three schools were closed for measles, and 2 for whooping cough.

Water Supply.—Many private wells have been dry, but none of the public ones. Ten private wells have been cleaned on account of pollution. A new ram has been provided at Alveley. Dr. Padwick considers the reservoir at Alveley too small.

"The dairies (14 registered) and cowhouses have been visited and found sanitary, as have also the workshops and schools."

BURFORD (Rural).

Medical Officer of Health .. E. T. Whitaker, M.B., B.SC., D.P.H.

Area in acres	.. ..	7,798
Population	*at* 1901 *Census*	1,233
Number of inhabited houses	,, ...	263
Number of persons per house	,, ...	4.7

General Characters.

Burford is the smallest rural district in the county. It lies on the southern slope of the Clee Hill and in no part is there any approach to an urban character. There is a good cottage hospital which serves Tenbury, in which town is situate the workhouse. The offices of sanitary inspector and surveyor are combined.

Statistics.

The population for 1904 is estimated at 1,210. The natural increase of population during the year was 2.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	14.0	.0	.0	.83	.0	1.6	.83	1.6	45	18.1
Averages for years	..	..	..	..	..	..	..	..	..	..

Infectious Disease.—The only cases notified were a doubtful case of diphtheria and a case of scarlet fever.

House Accommodation is fairly good. A systematic house to house inspection is pointed out as the most valuable way of dealing with housing defects.

Drainage and Sewerage,—The value of teaching the methods of disposal of refuse to the older boys in the school is pointed out.

Water Supply.—The water supply to Burford School has been improved, otherwise the supplies remain as before.

Workplaces, etc.—The only places coming under the 1901 Act are two small bakehouses.

Nuisances.—A regular survey of houses would prevent any serious nuisance being overlooked.

CHIRBURY (Rural).

Medical Officer of Health	J. J. Macgregor. m.d., f.r.c.s.
Area in acres	27,045
Population at 1901 *Census*	3,539
Number of inhabited houses ,,	812
Number of persons per house ,,	4.3

Statistics.

The natural increase of population during the year was 25.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	16.6	.56	.28	.84	.56	2.5	1.4	1.1	100	22.6
Averages for years 1898–1903	14.8	..	..	..	..	..	..	..	98	23.2

The somewhat high death-rate is accounted for by the age distribution of the population, with its large proportion of aged people. To the same cause is put down the low birth rate.

In connection with phthisis the dislike of ventilation and the want of cleanliness in many of the houses is commented on; and in connection with infantile mortality the difficulty of obtaining new milk for children.

There were no epidemics except one of influenza.

The supply of water in November and December was very short in most parts of the district.

CHURCH STRETTON (Urban).

Medical Officer of Health	M. Gepp, l.r.c.p.e., d.p.h.
Area in acres	982
Population at 1901 *Census*	816
Number of inhabited houses ,,	147
Number of persons per house ,,	5.5

Physical Features and General Character of the District.

"The District comprises the small ancient town of Church Stretton, lying in an open "valley running nearly north and south, 600 feet above sea level, together with the lower "slopes of the bold hills which form the sides of this valley. The area is 982 acres. The "subsoil of the valley is glacial drift, generally of dry and well-drained gravel, the hillsides "to the west being of hard Longmyndian rock strata, of Pre-Cambrian age, those to the "east being also of hard rock, of Ordovician age. The town lies on the crest of a watershed, "the natural drainage of the valley being on the North towards the Severn, and on the South "towards the Teme, the fall being gentle in either direction" . . . "the district was "constitued in 1899." "The climate, soil, and surface drainage are favourable to a high "standard of health, such as it certainly enjoys."

Statistics.

The natural increase of the population was 1. The population is estimated at the middle of 1904 to be 1,160, and corrected for institutions, 1,100 (rates calculated on this population).

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	17.3	.0	.0	1.8	.0	1.8	.9	.0	48	19.1
Averages for years 1900-1903	15.3	..	..	..	..	..	..	..	95	21.1

The rate of 17.3 includes 2 deaths in a private asylum, not strictly residents, and deducting these the death-rate would be 15.5.

Infectious Disease.—No cases were notified.

Hospital Accommodation.—Dr. Gepp recommends that a site be obtained and fenced and a cottage be built to act as an administrative block and as a temporary hospital until further accommodation is provided on the site.

Disinfection.—A sprayer has been provided for disinfecting rooms.

House Accommodation.—"There are still several worn out old cottages in occupation." "There is a good deal to be done yet to bring the back premises into a satisfactory condition." Dr. Gepp looks to a systematic house to house inspection for remedying these conditions.

Sewerage and Drainage.—The old town is fairly well sewered, and there is a complete scheme for the new areas. The new outfall is about 2 miles to the south of the town. Dr. Gepp calls attention to the need of shaft ventilators (suggests 25 feet high) where surface ventilators are closed and to the necessity for frequent flushing of the sewers. He suggests for flushing the old main sewer the use of the culverted brook near the Rectory gate.

The new drains are laid according to the bye-laws and regulations, but much remains to be done with regard to the old ones. Smoke testing and water testing apparatus have been procured.

Excrement Disposal.—Water closets are in general use. The few privies with underground vaults should be dealt with.

Removal and Disposal of House Refuse.—Weekly removal by the Council.

Water supply.—Ample supply—upland surface water. The main reservoir in New Pool Hollow, 12,000,000 gallons, is nearly 1,000 feet above sea level.

The old reservoir in Town Brook Valley, about 800 feet O.D., is retained for the supply of the old town and lower part of the district.

The New Pool Hollow is supplied from its own valley and by a main from a stream in the Light Spout Valley. The gathering grounds are uninhabited and uncultivated. The Light Spout Valley is much frequented by visitors, and the Town Brook Hollow to a less extent. The possibility of contamination, although not great, is pointed out, the danger being greater in the Town Brook Hollow on account of the smaller reservoir capacity and less complete subsidence. Frequent inspections are recommended.

Byelaws, etc.—Building byelaws have been adopted during the year. Byelaws for slaughter-houses, and regulations for dairies, cowsheds, etc., are now in force.

There are two slaughter houses, one new and the other much improved. There are two cow-keepers on the register. The premises in the one case are good and in the other old and dilapidated. The Council in the latter case has given a period of two years before enforcing structural regulations.

CHURCH STRETTON (Rural).

Medical Officer of Health ..	M. Gepp. L.R.C.P.E., D.P.H.
Area in acres	45,103
Population *at* 1901 *Census*	4,479
Number of inhabited houses ,, ...	1,005
Number of persons per house ,, ...	4.4

Physical Features and General Character of the District.

> "The District is one of hills and dales, highest across the centre from West to East, and "sloping to the North and South. The Northern part lies on the Southern Watershed of the "Severn, the Southern part on the Northern Watershed of the Teme, the various small streams "arising on its uplands and running off through the valleys to the North or South affording "good natural drainage. The elevation varies from 1700 feet at the summit of the Longmynd "to some 400 feet at the northern and southern limits of the District. Three ranges of hills "run through it from S.W. to N.E., the 'Longmynd' range along the Western side, the "'Caradoc' in the middle, and the escarpment of 'Wenlock Edge' runs through its Eastern "border. Between these ranges are fertile valleys with several villages and many isolated "farms and cottages. The hillsides are largely cultivated, but are in part uninhabited moor-"lands. The sub-soil is that of some of the oldest Geological formations, Archæan on the "West, Ordovician largely in the centre, and Silurian on the East, with a small and unimpor-"tant exposure of Coal Measures at the Northern end. These measures are not now worked. "The District is entirely rural and agricultural, with a sparse and scattered population."

Statistics.

The natural increase of the population was 55. The population is estimated at the middle of 1904 to be 4,440, and corrected for institutions 4,500.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	11.8	.22	.44	.88	.0	1.7	1.5	.22	77	23.1
Averages for years 1897-1903	16.0	..	..	..	..	..	..	..	92	22.9

The death-rate was the lowest for the last seven years.

The zymotic rate was due to 1 death from measles.

Infectious Disease.—13 cases of scarlet fever were notified. 7 of the cases were at Longnor, and the school was closed as a precaution. Longnor and Rushbury schools were closed in November for measles and whooping cough.

Hospital Accommodation—There is no hospital. A site difficult of access was obtained in 1903 for the Urban and Rural Districts. A more suitable site is being sought for.

Disinfection.—A spraying apparatus has been provided, and the disinfection is carried out by the Inspector.

House Accommodation.—There are many old cottages, small, badly designed, and dilapidated. Frequent inspection is necessary. The sanitary inspector is engaged in a house to house inspection.

Overcrowding.—The house to house inspection has not so far brought many cases to notice.

Sewerage and Drainage is mostly that of individual houses. At Winstanstow, All Stretton, and Little Stretton, house drains have been connected to road water drains, which have consequently become sewers, and should be inspected and cleansed.

Little Stretton.—A scheme for sewering Little Stretton, with the idea of connecting the sewer with the main of the Urban District, was got out. It was submitted to the Parish Council and rejected by them, and consequently the District Council did not proceed farther. Dr. Gepp inspected the District, and after reporting that the matter was not very urgent said—"I have only to add that if, as is possible, there should be building development in the village, or the number of water closets be considerably increased, the sewering of the village will become essential."

Excrement Disposal.—Usually by privies with underground vaults.

Scavenging.—By the Occupiers.

Water Supply.—All Stretton and Little Stretton, upland surface waters from uncultivated land : both would be benefitted by filtration. At All Stretton the stream above the dam is crossed by a cart road. *Leebotwood* has a supply laid on from upland springs. *Wistanstow* is supplied in part by gravitation and in part by a properly situated well. *Woolstone* is supplied from an upland spring. *Longnor*—This village is now supplied with excellent water from the "Candy" spring. Carriage of water for 300 yards is thus saved. *Cardington* has two good public wells. At *Picklescott* water is carried from a spout $\frac{1}{4}$-mile away.

Common Lodging Houses.—Two in All Stretton, kept in accordance with byelaws.

Dairies, Cowsheds, etc.—There are 14 cowkeepers on the register. The premises are visited quarterly.

CLEOBURY MORTIMER (Rural).

Medical Officer of Health ... E. T. WHITAKER, M.B., B.SC., D.P.H.

Area in acres ...		44,338
Population	*at 1901 Census*	6,720
Number of inhabited houses	,,	1,292
Number of persons per house	,,	5.2

General Characters.

"The population is very thinly scattered over the district, only the small town of Cleobury really approaching an urban character—though Highley is progressing towards that condition."

"The Workhouse is at Cleobury, and beyond a few coalpits there are no Manufacturies, etc., in the district."

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases.	Cancer.		
1904	15·6	1·1	·15	·47	·31	3·2	1·7	·15	158	30·0
..	..	..	..	..	..	..	..	..	..	..

The zymotic death-rate was due to 3 deaths from whooping cough, 1 from diphtheria and 3 from diarrhœa.

The infantile mortality was considerably above the average. Amongst the infantile deaths were 8 due to premature birth, 9 to chest affections, 3 to diarrhœa and 4 to wasting diseases, the latter indicating the want of better training in the feeding and management of infants.

Infectious Disease.—Six cases of diphtheria, 4 of erysipelas, 8 of scarlet fever and 1 of puerperal fever were notified. The diphtheria cases were quite independent of one another and were not connected with school attendance.

Drainage and Scavenage.—The scavenage of Cleobury remains as before. Dr. Whitaker refers to his previous remarks on the advantages of a proper scavenage system. The scavenage of Highley has been somewhat improved but is not ideal.

Water Supply.—Highley has been supplied from a good spring, the water being pumped up to the village. "Water is still much needed on several parts of the Clee Hill, little or nothing having yet been done to supply these cottages. May I remind you that the responsibility primarily rests on you."

Trades.—The Factories Act has little application. The few places that come within its provisions are inspected and dealt with.

Very little milk is sold so as to bring the cowkeepers under the Dairies Order.

CLUN (Rural).

Medical Officer of Health .. M. GEPP, L.R.C.P.E., D.P.H.

Area in acres	.. ..	82,206
Population	*at* 1901 *Census*	6,824
Number of inhabited houses	,, ...	1,487
Number of persons per house	,, ...	4.6

Physical Features and General Character of the District.

"The District comprises 82,206 acres, lying in the south-west of the County, and on the "borders of Wales. It is essentially a hill country, much of the District lying at an eleva-"tion of 1,000 feet and upwards, especially on the northern and western parts. The centre "and south-eastern part consists of open valleys from about 400 to over 600 feet in elevation, "and broken and divided by small groups of hills. The main structure is, I imagine, that of "an old elevated table land much dissected and weathered down.

"The Geological formation is much broken, the upper and lower Silurian and Ordovician "measures being exposed in considerable areas, with less extensive exposures of the Old "Red Sandstone, and of Cambrian and Pre-cambrian measures. The natural drainage is by "various streams rising in the hill country to north and west, and forming the small rivers "Onny and Clun, which leave the District through the valleys on the east and south-east to "join the Teme.

"The District is sparsely populated, and agricultural in character, much of the hill "country being cultivated or grazed.

"A small area in the north has in the past been worked for lead and other minerals but "these industries have much declined in recent years. The District contains the small town "of Clun, and several villages of small size which are principally placed in the valleys and "some smaller hamlets and many isolated houses scattered about the hill country."

Statistics.

The natural increase of the population was 99. The population at the middle of 1904 is estimated to be 6,770, and corrected for public institutions, 6,720.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	14.9	.0	.0	1.0	.15	2.2	3.1	1.8	58	28.1
Averages for years 1897-1903	15.1	.46	..	..	..	..	..	..	96	24.6

Infectious Disease.—14 cases of scarlet fever, 5 of diphtheria, 3 of enteric fever, and 5 of erysipelas were notified. Six of the cases of scarlet fever were at Lydbury North, and there was some suspicion that the school was involved. In one case of diphtheria the infection was imported. Two of the cases of *enteric fever* occurred at Clungunford at a house where there was an imported case 5 years ago. The water supply appeared to be unfit for drinking.

Plowden, Linley, Shelve and Clungunford schools were closed for influenza, chicken-pox, whooping cough, and scarlet fever and diphtheria, respectively.

Hospital Isolation.—The Council has secured two cottages for smallpox ; one in the Bishop's Castle division, and one in Clun division.

Vaccination.—There has been great improvement in recent years. In the years 1893—1897 the percentage unvaccinated was 34.2, in 1901 it was 9.0.

Disinfection is left in the hands of the occupiers.

House Accommodation.—Adequate in amount, but many of the houses are old and worn out. Special attention should be given in the inspection to drainage, condition of privies, scavenging, repairs of house property. There is room for much improvement in many of the small farms with respect to the house and fold yard, and the conditions causing dampness of the house walls.

Through illness and other causes not many house inspections were made. At least 500 should be made each year if house to house inspection is to be properly carried out.

Sewerage and Drainage.—With the exception of Clun town there are few public sewers. The principal sewers of the town discharge direct into the watercourse.

Excrement Disposal—mostly by privies with underground vaults. These need systematic attention to keep them in proper order. Earth closets should be encouraged. In Clun, Hurst Mill, and Clungunford village there are privies draining directly into streams causing dangerous pollution. These should not be allowed.

Water Supply.—There are a considerable number of small schemes of water supply from upland springs. There are still a number of villages that be similarly supplied, *e.g.*, Clunbury, Clungunford, and Clunton. *Clun* has an excellent supply from upland springs, laid on to every house but two. The water has not yet been laid on to Clun Green. *Newcastle*, a supply from upland springs carried out by the Council in 1899. *Chapel Lawn*, a public pump sunk by the Council in 1901. *Lydbury North*—an upland gravitation supply laid on to part of the village and available on terms for the rest. There is also a public well which Dr. Gepp recommends should be protected. *Lydbury Down*, *The Leasty*, and *Acton* have very pure upland spring water laid on. *Linley* has a gravitation supply laid on by owner in 1902. The water is drainage from a grass field. *Clungunford* is much in need of a good water supply. Up to recently the villagers carried from the spout, a distance of 200 yards to a quarter of a mile. This has recently failed, and now private wells or even the polluted water of the Clun are used. Dr. Gepp says "It appears to me that the Council should now take up the question seriously of a water supply for the village. The village and the parish has recently suffered from outbreaks of scarlet fever, diphtheria, enteric fever, and erysipelas, occurring coincidently with the failure of the "spout" supply, and the absence of good water may have had something to do with some of this prevalence of infection. In the first place search should be made for an upland source from which a small system of supply to standpipes could be laid on. Failing this the sinking of a public well should be considered. A new cottage in this village has been built and occupied without a certificate as to water supply being obtained from the Council, as required by the Public Health (Water) Act, 1878. One can have no desire to place any obstacle in the way of the building of new cottages, but the requirement as to water supply should be rigidly enforced to prevent accentuation of the difficulties of water supply in future in rural districts." *Cefn Enion.*—The Council have bought for the public use an existing well.

Dairies, cowsheds, etc.—These are registered and looked after by the sanitary inspectors.

DAWLEY (Urban).

Medical Officer of Health		M. GEPP, L.R.C.P.E., D.P.H.
Area in acres		2,790
Population	*at* 1901 *Census*	7,522
Number of inhabited houses	,,	1,633
Number of persons per house	,,	4.6

Physical Features and General Character of the District.

> "The District lies at a considerable elevation upon the Shropshire Coalfield and table-
> "land, of which it forms one of the higher parts. Its surface falls irregularly from North
> "and North-West to South and South-east, and from 670 feet, O.D., to some 400 feet roughly.
> "The surface drainage is good owing to the steep fall of this part of the Northern Watershed
> "of the Severn. The Geological formation is the Carboniferous, the District being for the
> "most part upon the Coal Measures, but with small exposures of the Millstone Grit in the
> "south-western part."

"As regards its general character, it may be described as a Coal and Iron Mining and "Iron-working district largely worked out. Coal Mines long out of work and dismantled Iron "works are common features. At the present time it is chiefly the place of residence of an "industrial community, many of whose members work in one or two large modern Engineering "or Pottery Works within the District, while large numbers work in Mines, Iron-works, and "Brick and Tile Works outside the District. The population fell off by upwards of 2,000 "persons between 1881 and 1891, but increased again by upwards of 500 during the ten years "1891—1901. For an Urban community it is very scattered in character. There is a compact business centre with some continuous lengths of houses radiating for some distance "from it along the main roads. The rest of the District is practically rural in character, "with houses isolated or in groups of more or less number."

"The District is naturally very healthy being high, dry and wind swept, and surface "drainage being good."

Statistics.

The natural increase of the population was 124. The population is estimated at the middle of 1904 to be 7620, and corrected for institutions, 7,650 (rates calculated on this population).

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	16.6	.39	.0	1.3	.13	2.7	1.8	1.0	119	30.7
Averages for years 1897–1903	15.8	..	..	..	..	..	..	..	103	32.3

The zymotic rate was due to 2 deaths from measles, and 1 from diarrhœa. The infantile mortality was above the average. Among the 28 deaths of infants were 10 due to diarrhœa, enteritis, or indefinite wasting diseases, most probably being "attributable to improper or injudicious methods of feeding."

Infectious Disease.—Eight cases of scarlet fever, 5 of diphtheria, 2 of enteric fever, and 2 of ersipelas were notified. One of the cases of enteric fever was imported and the origin of the other was doubtful.

Hospital Isolation—a hospital for small-pox with Shifnal; no hospital for other diseases.

Disinfection.—Disinfection of rooms by formalin spray—supply disinfectants for washing clothes.

House Accommodation.—The majority are small and old and often damp and dilapidated. There has been considerable improvement in recent years. Continued attention is required with regard to remedying dampness, absence of ventilation, etc., and this is being paid by the inspector in his routine inspection. Seven cases of overcrowding were dealt with. The desirability of the Council building dwellings at low rentals is pointed out.

There is much room for improvement in the cleanliness of the surroundings of the houses.

Sewerage and Drainage.—There is no system of sewerage—4 lengths of sewers have been laid during the year. The old sewers depend on rainfall for flushing, and untrapped road gullies for ventilation—a source of nuisance at times. House drains are mostly roughly constructed. The outfall of the sewers are through open channels to watercourses and into the Severn.

Excrement Disposal.—Mostly by privies with underground vaults. In the event of public scavenging, as previously recommended, not being carried out, Dr. Gepp suggests putting a horse, cart, and man at the disposal of householders, so that they may have the scavenging done promptly and at cost price.

Water supply—under consideration by a joint committee.

Bye-laws adopted during the year—new buildings (rural), slaughter-houses, regulations for dairies, cowsheds, etc. Byelaws for prevention of nuisances are in force.

Slaughter-houses.—One slaughter-house was registered during the year. There are 8 slaughter-houses, and 14 cowsheds, dairies and milkshops on the register.

DRAYTON (Rural).

Medical Officer of Health .. .. .. A. Macqueen, M.D.

Area in acres	.. ..	51,384
Population	*at* 1901 *Census*	11,708
Number of inhabited houses	,, ...	2,655
Number of persons per house	,, ...	4.4

Physical Features.

The general elevation of the District is about 300 feet. The formation throughout is the New Red Sandstone, which attains its greatest elevation in England in the district. The land in general contour is level, well watered, and highly cultivated, and is mostly drained by the River Tern.

Statistics.

The natural increase of the population was 132.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	15.9	1.4	.0	.77	.43	2.7	3.5	1.3	114	27.1
Averages for years 1895–1903	16.3	..	..	..	..	..	..	..	132	25.6

The zymotic death-rate was due to 8 deaths from measles, 2 from scarlet fever, 4 from whooping cough, 1 from enteric fever, and 1 from diarrhœa.

Infectious Disease.—47 cases of scarlet fever, 12 of erysipelas, 3 of diphtheria, 1 of enteric fever, and 1 of pulmonary tuberculosis were notified. 24 of the cases of scarlet fever were in Norton parish—the schools were closed for 7 weeks. Hinstock schools were closed for a month on account of whooping cough, and Little Drayton, Market Drayton, Cheswardine and Woodseaves schools, on account of measles.

Disinfection of rooms is carried out under the supervision of the Nuisance Inspector.

Hospital Accommodation a hospital at Little Drayton for infectious diseases other than small-pox, and one at Prees Heath for small-pox.

Vaccination, 1904.—Births 315, successfully vaccinated 237, 20 died unvaccinated, 9 postponed by medical certificate, 5 removed, 44 not yet of age for vaccination.

House Accommodation.—On the whole adequate. Many houses have been recently built near Market Drayton. A number of dilapidated houses are having the attention of the Council. Bye laws are now in force.

Lodging-houses, slaughter-houses, and bake-houses are regularly inspected.

Dairies and cowsheds, etc., are registered, and their inspection is under the consideration of the Council.

Sewage Disposal.—"The treatment of Market Drayton sewage should now have the attention of the Council."

Excrement Disposal.—Partly by privies and partly by water-closets. The water carriage system should become general in Market Drayton and Little Drayton.

Water Supply.—A good supply to Market Drayton and Little Drayton. In 1902 Dr. Macqueen reported on the water supplies of the villages in the district, and the subject is having the consideration of the Council.

ELLESMERE (Urban).

Medical Officer of Health .. .. E. T. Whitaker, M.B., B.Sc., D.P.H.

Area in acres	.. ..	1,204
Population	*at* 1901 *Census*	1,945
Number of inhabited houses	,, ...	425
Number of persons per house	,, ...	4.5

General Characters.

> "The Urban District of Ellesmere has an area of 1,204 acres, and in 1901 the Census "return gave the population as 1,945. The density of the population is thus 1.61 persons "per acre and 4.5 persons per house, which, considering that the workhouse and some "schools are included, is an indication of the absence of overcrowding. The town itself is a "pleasant agricultural centre, frequented by tourists, the houses generally being in good "condition and the side walks paved. There are no manufacturies of any size. The water "supply is excellent and the town is sewered. The sanitary condition receives close atten "tion from your Inspector and beyond the need for improved scavenage there is little that "affects the community that calls for specific comment."

Statistics.

The population is estimated at 1,970. The natural increase of the population during the year was 14..

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	14.2	1.0	.0	.50	.0	1.5	1.0	.0	187	26.4
	..	..	..	..	..	..	..	..	..	..

The high infantile mortality was due to six deaths only.

The zymotic death-rate was due to 1 death from whooping cough and 1 from diarrhœa.

Infections.—Only one case of scarlet fever was notified.

House Accommodation.—Fairly good. A house to house inspection is being continued.

The Scavenage of the town remains as described in 1903 report, and is worthy of consideration.

Water Supply is from the Liverpool main, and is mostly laid on to the houses.

Workshops.—The 1901 Act has little application. A register is kept and the places are inspected. Slaughter-houses and Bakehouses are visited and found fairly satisfactory.

ELLESMERE (Rural).

Medical Officer of Health .. .. E. T. Whitaker, M.B., B.SC., D.P.H.

Area in acres	51,117
Population at 1901 *Census* ,, ...	7,911
Number of inhabited houses ,, ...	1,658
Number of persons per house ,, ...	4.7

General Characters of the District.

> "The District is strictly agricultural and the houses are for the most part more or less "widely distributed. There are a few small villages and hamlets of which Baschurch is the "largest. Parts of the district are very flat, but most of it is undulating and cultivated. The "sub-soil is gravel with some clay and drift."

Statistics.

The natural increase of the population during the year was 100.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	14.9	.50	.12	1.0	.25	1.6	1.9	.63	86	26.3
	..	..	..	..	..	..	..	..	..	..

The zymotic death-rate was due to 3 deaths from whooping cough and 1 from enteric fever. Dr. Whitaker alludes to the possibility of practically exterminating phthisis, and he says it is a matter in which the County Council should lead.

Infectious Disease.—21 cases of scarlet fever, 1 of enteric fever, 1 of diphtheria, and 4 of erysipelas, were notified. There were 3 cases of scarlet fever in each of three houses, and 2 in three others. The case of typhoid fever was imported. Measles and whooping cough occurred in various parts of the district.

Disinfection.—There is no systematic disinfection, nor are disinfectants supplied.

House Accommodation is on the whole satisfactory.

Drainage and Sewerage.—Where there is adequate space around houses slop water and closet contents should be applied to the garden, and the best means of doing this, should be taught in the schools. "The ground water, from which the water supply of Baschurch is obtained, is polluted by the absence of adequate drainage, a great portion of the slop water soaking into it. You decided to instruct your surveyor to require persons so polluting the water to cease doing so, but until there is improved drainage this is scarcely possible."

Water supply.—The previous report on Baschurch and Hadnal are referred to. Dr. Whitaker advises that the parishes be considered one by one.

Workshops.—There are 54 workplaces on the register. They have all been inspected and found for the most part satisfactory.

LUDLOW (Urban).

Medical Officer of Health	C. B. Cranstoun, M.B.
Area in acres	418
Population at 1901 *Census*	6,373
Number of inhabited houses ,, ...	1,372
Number of persons per house ,, ...	4.6

Character of the District,

> "Ludlow is a small agricultural town on the southern border of Shropshire, about 360
> "feet above sea level. It is situated on a large spur of limestone rock, which rises at the
> "lower end of the Corve Valley. On the north, west and south sides, it is separated from the
> "surrounding hills by the rivers Corve and Teme. On the east side the ground gradually
> "rises till it becomes continuous with the Clee Hill range."

Statistics.

The natural increase of the population during the year was 43.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	15·1	·47	·31	1·6	·31	2·0	1·1	1·7	124	22·9
Averages for years 1894-1903	17·8	..	..	..	..	..	..	..	120	27·5

The zymotic rate was due to 1 death from diphtheria, 1 from whooping cough, and 1 from diarrhœa.

Infectious Disease.—Two cases of smallpox, 5 of diphtheria, and 1 of scarlet fever were notified.

Of the cases of small-pox the first was a workman from Manchester, who met with an accident, was admitted to the workhouse, and from there moved to the Isolation Hospital. The second case was infected in the workhouse.

Hospital Accommodation—a small hospital for small-pox to serve the Urban and Rural Districts. Dr. Cranstoun urges the provision of accommodation for other diseases, and suggests two beds for every 1,000 of population.

Vaccination is said to be satisfactory, although there is a slight increase of conscientious objectors.

Water Supply.—Good in the lower parts of the town both in quantity and quality, although there was slight discolouration during heavy rain.

Dr. Cranstoun reports that the supply to Whitcliffe View is a failure, and that it requires urgent attention.

Sewage System.—The disposal works are being reconstructed. The added area is to be sewered. The ventilation of many of the sewers is bad, being often by rain water pipes.

House Drainage.—Dr. Cranstoun urges the adoption of the water test and proper inspection for all new drains.

Disposal of Excrement and Refuse.—The mass of refuse in Smithfield is increasing, and is now a public nuisance and a danger to the health of the town. The difficulty of finding a suitable tip leaves a destructor as the only remedy.

Common Lodging Houses.—There were four applications for registration. The customary minimum of 300 cubic feet is not observed.

Bakehouses (7) have been inspected and certain sanitary improvements suggested. There are no underground bakehouses.

Workshops—other than bakehouses, 59 on the register. They are clean and air space is satisfactory. The ventilation has been improved in two cases.

LUDLOW (Rural).

Medical Officer of Health	G. H. Shackel, L.R.C.P.
Area in acres	66,595
Population at 1901 *Census*	9,585
Number of inhabited houses ,,	2,003
Number of persons per house ,,	4.7

Statistics.

The natural increase of the population during the year was 104.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	14.5	1.5	1.0	.62	.21	2.7	1.0	1.0	121	24.2
Averages for years 1902-1903	11.5	..	..	..	..	..	..	..	66	26.6

The zymotic rate was due to 5 deaths from whooping cough, 8 from diphtheria, and 2 from diarrhœa.

Infectious Disease.—Thirty-two cases of *diphtheria* were notified, 8 proving fatal. These were dealt with in special reports. The property near "The Oak" has been supplied with good drinking water, and many improvements have been made in the sanitary accommodation of the houses. There still remains much cottage property in the Clee Hill district with serious sanitary defects, and where the water supply is bad. *Scarlet fever*, 15 cases were notified with no deaths. Eleven cases were in Delbury district and mostly attending Culmington school. Dr. Shackel does not however think that the disease was spread by school attendance.

Whooping cough was prevalent in January in Bitterley, in Delbury in March, in Clee St. Margaret in May, Stoke St. Milborough in December ; mumps in Holdgate in February ; bronchial colds and coughs in Chilton in February ; diphtheria in Clee Hill in September. The schools in these districts were closed.

Diphtheritic antitoxin is provided by the Council for preventive inocculation, and by the Board of Guardians for curative purposes in pauper cases.

Water Supply.—The district has suffered from scarcity, particularly at Craven Arms. Arrangements have been made to augment the Craven Arms supply. Westhope and Seifton Bach have been very short of water. An additional supply has been laid on from the mill reservoir at Seifton, and "The Oak" Clee Hill, has been supplied.

Wells to new houses.—Regulations have been made that no well be certified as satisfactory unless its position and structure be approved, and they insist that the upper ten feet of such wells shall be so constructed as to prevent the access of water through the walls.

Cowsheds and Dairies.—21 on register—mostly visited and found fairly satisfactory.

Slaughter Houses.—9 registered—kept in a better state.

Factories and Workshops.—19 on register, including 9 bakehouses. In some of the older bakehouses the floors are badly constructed and not efficiently drained—otherwise fairly satisfactory.

NEWPORT (Urban).

Medical Officer of Health	M. Gepp, L.R.C.P.E., D.P.H.
Area in acres	768
Population *at* 1901 *Census*	3,241
Number of inhabited houses ,, ...	720
Number of persons per house	4.5

Physical Features and General Character of the District.

> "The District comprises 759 acres, lying on the Eastern border of the County, very level
> "in contour, the general elevation being some 250 feet. The natural drainage is to the West,
> "but there is no stream of any importance. The sub-soil is the Bunter beds of the New Red
> "Sandstone. The District includes the town of Newport, consisting chiefly of one long and
> "wide street, about a mile in length, running North and South, with several narrow lanes
> "and passages and courts running at right angles from it. This part of the Town is compact
> "and old, and there is about the centre some crowding of houses upon area. To East and
> "West is open country with extensions of more modern building along the roads converging
> "on the town, and some outlying collections of houses. Newport is a market and residential
> "town."

Statistics.

The natural increase of the population was 20. The population is estimated at the middle of 1904 to be 3,209, corrected for public institutions 3,140 (rates calculated on this population).

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	16.6	.64	.0	1.9	.32	2.9	3.2	1.9	104	24.5
Averages for years 1898–1903	16.0	..	..	..	..	..	..	..	105	25.1

The phthisis and cancer rates are both high.

The zymotic rate was due to 2 deaths from diarrhœa.

Infectious Disease.—Scarlet fever 25 cases in 17 houses. 11 of these cases occurred in October and November, Those in October being probably connected with the National School. There was evidence that 2 children had had mild scarlet fever and returned to school whilst still infectious. One case was discovered amongst the children and sent home. Dr. Gepp says routine medical inspection is the only means of preventing such spread of infectious disease. One case of enteric fever and one case of diphtheria were notified.

Hospital Isolation—small hospital of 4 beds. Three cases of scarlet fever were removed to it.

Smallpox.—In conjunction with two rural districts the Council have a site.

Disinfection.—Sulphur candles are supplied. In some cases the sanitary inspector supervises disinfection.

House Accommodation.—Adequate in amount and in general also in fitness for habitation. There are however a good many worn out old houses that do not reach a satisfactory standard of fitness. There is much room for improvement as regards cleanliness. A house to house inspection is in progress, 103 houses being inspected in the year.

Sewerage and Drainage.—The new sewerage and outfall works are completed. There is much scope for work in the reconstruction of old drains. All new drains and relaid old drains are submitted to the water test.

Excrement Disposal.—About one fourth of the houses have water closets. Dr. Gepp advises more energetic action with regard to the conversion of privies to water closets.

Scavenging—undertaken by the Council .

Water Supply from 3 artesian wells in the New Red Sandstone. Dr. Gepp reports it of a high degree of organic purity. During the year it was laid on to 20 new houses and 12 old ones.

There are 8 slaughter-houses, 20 dairies, cowsheds and milkshops, and 4 common lodging houses on the registers—all inspected and found satisfactory.

NEWPORT (Rural).

Medical Officer of Health	.. ..	M. GEPP, L.R.C.P.E., D.P.H.
Area in acres	.. ..	22,807
Population	*at* 1901 *Census*	6,033
Number of inhabited houses	,, ...	1,284
Number of persons per house	,, ...	4.7

Physical Features and General Character of the District.

> "The District comprises 22,945 acres, lying upon the Eastern border of the County. "The Northern and larger part is on the Shropshire plain, varying in elevation from 150 to "300 feet, O.D., and lying on the Bunter Beds of the New Red Sandstone. This part is "entirely agricultural and contains the villages of Edgmond and Tibberton with some smaller "ones. The Southern and much smaller part rises rather rapidly, reaching some 500 feet "elevation at the extreme border on the South and comprising the apex of the extensive "triangular Coalfield which has its base some miles to the South. This part lies upon the "Coal Measures, with a small intrusive outcrop of much broken and older strata forming "Lilleshall Hill, on and around which is the village of Lilleshall. The natural drainage is "by various small streams from the South and East flowing towards the West, and falling "into the Tern River outside the District. There are several Collieries and some Engineering "and other ironworks in the Southern part, and the population there is relatively denser, "but much scattered in groups of dwellings, and for the most part industrial."

Statistics.

The natural increase of the population was 95. The population in the middle of 1904 is estimated at 6,056, and corrected for institutions, 6,080 (rates calculated on this population).

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	14.0	1.15	.49	.98	.16	2.0	1.3	.98	125	28.9
Averages for years 1897–1904	16.0	..	..	..	..	..	..	..	126	26.7

The zymotic rate was due to 4 deaths from whooping cough, 1 from measles, and 2 from diarrhœa. The infantile mortality "is clearly too high, and indicates that greater knowledge and care in the feeding and rearing of infants is much to be desired."

Infectious Disease.—Seventeen cases of scarlet fever, 16 of diphtheria, 2 of enteric fever, and 2 of erysipelas were notified. The majority of the cases of scarlet fever were in and around Edgmond, in the latter part of the year, and probably spread through the school, which was closed November 20th. All the diphtheria cases occurred in Donnington Wood, and were part of a prolonged and scattered epidemic affecting Oakengates. 5 cases in February were associated with St. George's School. Five in October were grouped more closely and were probably due to personal contact. The cases were mild and their spread was probably due to mild overlooked cases. There were however 3 deaths from croup. One of the cases of enteric fever was obscure and the other probably imported. In the latter household 7 persons suffered from acute diarrhœa.

Hospital Accommodation.—As in the Urban district.

Disinfection by householders—sulphur candles are supplied. Dr. Gepp recommends spraying under supervision.

House Accommodation.—In the agricultural area the houses are on the whole fair. In the industrial area of Donnington Wood a good deal of improvement is being effected, but the houses still require special attention, particularly the "Barracks," and the one storey houses generally. The census returns show undesirable overcrowding.

There is very little new building and no building byelaws.

Sewerage and Drainage.—Houses are drained as a rule separately on to gardens, fields, or into the nearest ditch or watercourse, usually without offence.

In Donnington Wood groups of houses are drained by common drains into ditches or watercourses. One such drain has caused a nuisance and is under consideration by the Council. Edgmond is drained by three or four sewers with separate outfalls on land; the sewers are not flushed or ventilated. The drainage of 22 houses in Church Aston came under notice. They drain by five or six outlets into ditches, and caused offensive accumulations. The cleansing of the ditches was advised and carried out.

Excrement Disposal.—Mostly by privies with underground vaults. Attention should be given to their repair—particularly the exclusion of rain and surface water.

House Refuse.—Removed by occupiers.

Water Supply.—Church Aston and Chetwynd Aston from the Urban supply, Tibberton supply to standpipe from a well with wind engine, Edgmond, public fountain and several houses from a well with wind engine. Lilleshall Parish will probably shortly be supplied by the Duke of Sutherland.

Owing to an accident the colliery supply to Donnington Wood failed for 12 days in April, and during this time water was obtained from many very undesirable places.

OAKENGATES (Urban).

Medical Officer of Health	..	E. T. WHITAKER, M.B., B.SC., D.P.H.
Area in acres	.. ..	2,327
Population	*at* 1901 *Census*	10,906
Number of inhabited houses	,, ...	2,187
Number of persons per house	,, ...	5.0

"The District, as now constituted, covers an area of some 2,327 acres, and includes several more densely populated localities with some open country with scattered dwellings. It was formed in 1898 out of the adjacent parts of three neighbouring rural districts owing to the difficulties in securing anything like efficient sanitary administration."

"The ground surface varies considerably, the portion of the North and West being part of the Shropshire plain overlying the Bunter Beds and covered with drift, the elevation sloping from about 200, O.D., in the North to nearly 400 towards the South-East, where the Coal Measures rise up, and gradients rapidly rise to nearly 600 O.D. It is the centre of an important coal and iron industry.

"The District thus includes a large number of mines both exhausted and actively working, coal and iron stone being raised, and a number of ironworks and engineering shops. There are a few good houses and a large number of cottages more or less irregularly distributed and of low rateable value.

"From a sanitary point of view the outstanding features have been the lack of a pure and abundant supply of water and means of drainage."

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	16.7	2.4	.18	1.0	.63	2.2	1.4	1.1	152	33.9
Averages for years 1898–1903	16.5	..	..	..	..	..	..	..	131	32.8

The general death-rate was raised by a high mortality from diarrhœa and other zymotic diseases.

The zymotic death-rate was due to 5 deaths from measles, 2 from scarlet fever, 2 from whooping cough, 9 from diphtheria, 2 from enteric fever, and 7 from diarrhœa. 11 deaths were due to phthisis. Dr. Whitaker mentions the education of children, the prevention of indiscriminate spitting in dwellings, public buildings, etc., and the provision of sanatoria for educational and other purposes as the most hopeful means of preventing this disease.

Infantile Mortality.—Twenty-seven of the 57 deaths are considered as avoidable and due mostly to ignorance.

Infectious Disease.—57 cases of diphtheria, 10 of erysipelas, 17 of scarlet fever, 6 of enteric fever, and 1 of purperal fever, were notified. Diphtheria was the subject of a special report during the year. The cases of scarlet fever occurred in the last quarter of the year and little or no connection between the cases could be shown. Typhoid fever—3 of the 6 were probably traceable to defects in drainage, and probably none were due to water or milk.

Hospital accommodation for small-pox remains as before.

House Accommodation.—There are a large number of houses requiring constant supervision. There is some building but not of houses available for the poor.

Drainage and Scavenage.—Dr. Whitaker anticipates great improvement of the district from the drainage scheme. The system of scavenging remains the same, but greater care is taken.

Workshops.—Owing to change of staff the sanitary administration of workshops has not been put on a proper footing. The register has not been entered up nor routine work indicated.

Slaughter-houses and bakehouses are on the whole fairly satisfactory.

Nuisances.—A considerable amount of work has been done in the abatement of nuisances.

OSWESTRY (Urban).

Medical Officer of Health .. R. de la P. Beresford, B.A., M.D.

Area in acres	.. ..	1,887
Population	*at* 1901 *Census*	9,579
Number of inhabited houses	,, ...	2,083
Number of persons per house	,, ...	4.6

Statistics.

The natural increase of the population during the year was 111.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	16.4	.50	.30	1.2	.30	2.3	2.3	.60	91	25.4
Averages for years 1894–1903	17.5	..	..	..	..	..	..	..	129	27.8

The zymotic death-rate was due to 2 deaths from whooping cough, 1 from measles, 1 from diphtheria, and 1 from diarrhœa.

Dr. Beresford remarks that the cancer rate has decreased and is much less than in the surrounding districts.

A case of enteric fever occurred in the Borough near a large reservoir, and another at a house with drainage defects. Both cases were removed to the infectious hospital.

The lodging houses are with one exception well kept, and the factories and workshops are in good condition.

A farm has been purchased which largely ensures the purity of the water supply, and ample land obtained for sewage disposal.

OSWESTRY (Rural).

Medical Officer of Health ..		R. DE LA P. BERESFORD, B.A., M.D.
Area in acres		60,366
Population	*at* 1901 *Census*	14,727
Number of inhabited houses	,, ...	3,220
Number of persons per house	,, ...	4.6

Statistics.

The natural increase of the population during the year was 156.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	15.9	.40	.13	1.2	.47	.87	2.4	1.5	119	26.9
Averages for years 1896–1903	15.2	..	..	..	..	..	..	..	99	27.2

The zymotic death-rate was due to 3 deaths from whooping cough, 1 from diphtheria, and 2 from diarrhœa.

Infectious Disease.—Two cases of diphtheria, 4 of erysipelas, 11 of scarlet fever, and 3 of enteric fever were notified. One of the cases of diphtheria occurred at a school house. The school was closed for a long period, as the throat was shown by bacteriological examination to be infectious for seven weeks. "The scavenging and draining of some of the larger villages is becoming a pressing question which must be dealt with in the near future." Dr. Beresford is sorry that the Whittington and Gobowen scheme is at a standstill, but he hopes soon to see the Liverpool water laid on to these districts.

The lodging-houses have been well-kept and the factories and workshops visited and well looked after.

SHIFNAL (Rural).

Medical Officer of Health .. E. T. WHITAKER, M.B., B.SC., D.P.H.

Area in acres	.. ..	45,380
Population	*at* 1901 *Census*	8,844
Number of inhabited houses	,, ...	1,918
Number of persons per house	,, ...	4.6

General Characters.

"Your rural district has an area of 45,380 acres. Two of the parishes are administered "by you though in the geographical county of Stafford, as is also a portion of a third. The "population is small and for the most part scattered thinly, with an average density of only "one person per five acres of land. The district comprises sixteen parishes, all of them, "excluding a portion of Shifnal and Albrighton, being strictly rural. The district is agricul-"tural, with some parks, and overlying a succession of New Red Sandstone series, coal "measures cropping up at the extreme western boundary.

"The small town of Shifnal has, for various purposes, been made a contributory area, "and is the market town for the surrounding agricultural area. Owing to the recent provi-"sion of a modern sewage system and an abundant supply of pure water, it now presents "many attractions as a residential locality.

"The Infectious Diseases (Prevention) Act and parts of the 1890 Amendment Act are in "force, and Model Regulations for Cowsheds and Dairies, together with By-laws relating to "new buildings and also to nuisances have been adopted.

"The only public institutions are the workhouse, a good cottage hospital, and a new "isolation hospital for small-pox."

Statistics.

The population is estimated at 8,850. The natural increase of population during the year was 78.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	15.8	.79	.11	.79	.79	2.2	2.0	.68	120	24.4
	..	..	..	..	..	..	..	..	..	..

The zymotic death-rate was due to 4 deaths from measles, 1 from whooping cough, 1 from diphtheria, and 1 from diarrhœa.

Dr. Whitaker thinks that the most hopeful means of reducing the mortality from tuberculosis, infectious diseases, and infantile wasting diseases is by teaching the rules of healthy living in the elementary schools.

Infectious Diseases.—Six cases of diphtheria, 9 of scarlet fever, and 1 of erysipelas were notified. The cases of scarlet fever were with one or two exceptions quite unassociated with one another. The cases of diphtheria were not traceable to insanitary conditions. An outbreak of measles was the subject for a special report.

House Accommodation.—On the whole good, and little overcrowding.

Water Supply.—"Further progress has been made in extending the new water supply."

Workshops and Trades.—A register is kept and the places inspected.

Slaughter houses, bakehouses, cowsheds and lodging houses have been regularly visited and reported on.

Dr. Whitaker is glad to be able to report further improvement in the general sanitary condition of the district.

SHREWSBURY (Urban).

Medical Officer of Health .. M. GEPP, L.R.C.P.E., D.P.H.

Area in acres	.. ..	3,525
Population	*at* 1901 *Census*	28,395
Number of inhabited houses	,, ...	6,065
Number of persons per house	,, ...	4.68

Physical Features of the District.

"The Borough comprises 3,525 acres, forming an area nearly equal in length and "breadth, and roughly quadrangular. This area lies in the Valley of the Severn, which is "here wide and open, having a gradual fall to the river, and varying in elevation from 150 "to 260 feet above sea level. The geological formation is varied, the Permian Red "Sandstone occurring in a band across the centre, with the Bunter beds of the New Red Sand-"stone to the North, and the Coal measures on the South. The actual subsoil is however "mainly river drift of varying and generally considerable thickness, in places stiff clay, "but generally sandy and dry in the upper part, with clay underlying at greater or less "depth. The contour offers good natural drainage to the Severn, which owing to its devious "course flows over a length of some eight miles, either through, or along the borders of, the "District. The actual length of its flow through the District is about three miles."

"The climate of Shrewsbury is mild and healthy. Though not bracing and having the "characteristics of a valley climate, yet the open nature of the valley and the varied contours "of the town, together with the course and movement of the Severn through and around the "the town, prevent stagnation of the air, and the prevailing South-West wind has free course, "keeping the air clear and fresh, and river fogs are neither common nor dense. The rainfall "is moderate, the town lying within the rain shadow of the hills of Wales and the Border "Country. The rainfall taken at the Corporation Yard, Coleham (173 feet, O.D.), was in 1904 "21.81 inches. The average rate for the five years 1899—1903 was 27.3 inches. For the six "preceding years, 1893—98, the average was 21.6 inches. The average for the twelve years "has been 24.0 inches."

"The old town of Shrewsbury stands on two hills, of generally moderate ascent, but "steep in parts, and nearly surrounded by the river, which here forms a horseshoe curve "some two miles round with a width across the neck of some 400 yards. This enclosed part "is for the most part densely built upon. Of the various suburbs across the river, Frankwell "forms an old settlement on the North-West, with modern extensions, chiefly of villa "residences, along the main roads radiating from it. Kingsland is a modern residential "suburb to the South-West, Coleham an old settlement to the South-East with Belle Vue, a "modern extension, adjoining; and Abbey Foregate, old near the river, and modern and "residential further out, lies to the east. To the North-East, on the low-lying ground out-"side the neck of the peninsula, is the considerable district of Castle Fields, built over for the "most part some forty to fifty years ago, and forming an artisan residential quarter."

Statistics.

The population at the middle of 1904 is estimated at 28,937, and corrected for institutions, 29,197. The natural increase of the population during the year was 267.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	16.7	1.58	.17	1.7	.61	2.7	1.6	1.0	164	25.8
Averages for years 1894–1903	17.95	..	..	..	..	..	..	..	141	26.4

The zymotic death-rate was due to 15 deaths from measles, 1 from scarlet fever, 16 from whooping cough, 3 from enteric fever, and 11 from diarrhœa.

The high Infantile Mortality rate was due partly to the prevalence of measles and whooping cough. Dr. Gepp says there is much room for improvement in the borough in this particular, and he recommends the distribution of leaflets by registrars when births are registered, and also the more frequent inspection of dairies, cowsheds, and milk shops.

Infectious Disease.—Sixty-six cases of scarlet fever, 8 of diphtheria, 9 of enteric fever, 11 of erysipelas, and 1 of peuperal fever, were notified. The number of cases of scarlet fever was larger than in any year since 1899. The cases were mostly mild, but this feature added to the difficulty of preventing its spread owing to overlooked cases. To safeguard school children, regular inspection by a medical man appointed by the Education Authority is recommended. Cases occurred in all parts, but Frankwell had relatively the greater number. The origin of the cases was as a rule obscure. *Enteric Fever* in the borough has declined from an average of 54 for the years 1891-1895 to 11 for the years 1901-1904. The origin of the cases last year was obscure and there was no spread from person to person. *Measles* was prevalent during the early months and three of the schools were closed. One school was closed on account of whooping cough.

Phthisis and Tuberculosis.—The death-rate from tuberculosis was higher than in the country generally. Dr. Gepp recommends voluntary notification by medical men, with payment of the notification fee, and disinfection of the houses after death or removal of the patient. An enquiry into 57 deaths showed that 49 had apparently been infected in the Borough. In 17 there was a family history of consumption, and in 5 there was a history of recent tuberculosis in the family. Two of the houses were dark and ill-ventilated, and 3 dirty.

Summer Diarrhœa.—The rate is consistently low.

Hospital Isolation—an emergency hospital with 6 beds and a Berthon Hut for 4 beds. There is no accommodation for the common infectious diseases. Dr. Gepp suggests that the emergency hospital be removed from its present unsuitable site and that accommodation be provided for those cases of scarlet fever, diphtheria and enteric fever, that cannot be isolated at home.

Disinfection.—There is no public disinfecting station. Rooms are disinfected by spraying with formaldehyde and by fumigating with formalin vapour. Disinfectants are provided. Disinfection after phthisis is recommended.

Vaccination is well looked after.

House Accommodation—adequate in amount. The problem is how to keep a large number of old houses, badly placed and designed and in a condition of decay, in a decently wholesome and sanitary condition. Frequent inspection and constant attention is required for this purpose. Fifty cases of overcrowding have been dealt with during the last two years.

Housing of the Working Classes Act, 1890. No house was closed during the year. Of 242 houses reported on by a lady health visitor, only 25 required notice for repairs. The housing conditions are improving year by year, about 80 or 90 houses being put up each year. In the old town there are many houses crowded together without proper lighting and circulation of air, and a considerable proportion built back to back or without back windows. A number of the courts are roughly paved with cobbles or unpaved.

Inspection.—The assistant sanitary inspector, who has been 3 years mostly making a house to house inspection, has left during the year. Dr. Gepp recommends the appointment of an assistant inspector to assist generally, but more particularly to carry out a house to house inspection, to inspect dairies and cowsheds (at least six times yearly), workshops, and other places over which the Council has supervision.

Sewerage and Drainage.—Gradual replacement of the defective sewers is recommended.

Ventilation of Sewers.—The disconnection of all house drains and the ventilation by shafts is recommended. Flushing is regularly attended to.

Excrement Disposal.—The water carriage system is practically universal.

Removal and Disposal of House Refuse.—There is weekly removal. The refuse is tipped within the Borough. Few complaints have been received during the year. Refuse liable to decompose should be covered with soil.

Water Supply.—An upland surface water scheme was put before the rate-payers and rejected by a large majority. Plans and estimates of a river scheme are to be prepared and both schemes submitted for final selection by the rate-payers. Dr. Gepp considers that the upland scheme will be the best solution, although he says "a thoroughly well-designed and scientifically controlled River Water Filtration system would not in my opinion prove detrimental either to the health or interests of the Borough. . ." He also says "The comparative costs of the two schemes should be closely considered, and unless the upland scheme greatly exceeds the River scheme in cost, my view is that the Town will do wisely to adopt the former."

Slaughter-houses—23 in number, are periodically inspected. A public slaughter-house is recommended.

Dairies, Cowsheds and Milkshops.—These places are inspected but a more frequent inspection is desirable.

Common Lodging Houses.– Attention is drawn to the fact that the byelaws are out of date. Adoption of the model byelaws is recommended.

Factory and Workshops Act.—A register is kept but is not yet complete. An assistant inspector is required so that more frequent inspection may be carried out.

Pig keeping.—The sanitary committee have decided to adopt the model byelaws with regard to nuisances, and to prescribe 60 feet from a house as the minimum distance for keeping pigs.

Food and Drugs.—Seventeen samples were taken for analysis and all were found to be genuine.

TEME (Rural).

Medical Officer of Health .. .. John H. K. Griffiths, M.B.

Area in acres	.. ..	23,091
Population	at 1901 *Census*	1,846
Number of inhabited houses	„	388
Number of persons per house	„	4.7

Statistics.

The natural increase of the population was 15.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	11.9	.54	.0	.54	.0	1.08	1.62	1.08	135	20.0
Averages for years 1900–1903	14.9	..	..	..	..	..	..	..	132	25.6

Both the birth and death rates are exceptionally low. The high infantile mortality was due to 4 premature births, and 1 death from measles.

Infectious Disease.—Only 4 cases of scarlet fever were notified. Measles was prevalent in Bedstone in March, and the school was closed. The same school was closed on account of whooping cough in September and October.

Water Supply.—"In April I reported on the water supply of Bucknell. This can hardly be considered as, on the whole, satisfactory either as regards quantity or quality, several of the wells being dry even at the present time (February). I have recently examined samples from two of the wells which have been cleaned out since my report in April, but unfortunately the water shows no improvement."

"The water supply of Kinsley district remains in the same unsatisfactory condition, the County Analyst having certified that, with one exception the water was satisfactory; that being the case the Council has no power to compel the owners to lay on a better supply; this is a most unfortunate state of things as the other wells may become polluted at any time owing to the near proximity of the drains and cesspools."

Measles has been added to the notifiable diseases.

There are no factories and only one workshop besides the blacksmiths and carpenters. This workshop is in good sanitary condition.

WELLINGTON (Urban.)

Medical Officer of Health	E. T. Whitaker, M.B., B.SC., D.P.H.
Area in acres .. *at* 1901 *Census*	381*
Population .. ,, ...	6,283
Number of inhabited houses ,, ...	1,327
Number of persons per house ,, ...	4·7

General Character of the District.

> "Wellington is the market town of a large agricultural area, having also in its vicinity important mining and manufacturing districts. Well served by various railway lines, a considerable number of outsiders come into the town, and there is a good deal of constant intercourse with other parts of the country. The area was recently enlarged, and now covers six hundred and eighty-four acres. The surface levels vary a good deal, and for the most part drainage gradients are satisfactory. The subsoil is clay and gravel drift overlying the lower layers of New Red Sandstone. The water supply is under the control of the Local Authority, which also has the water rights over a good deal of the surrounding rural area, only part of which it has hitherto availed itself of. The sewers of the town are modern, and there is an outfall well beyond the borders of the town. The roads also are under the management of the Council, and a very considerable amount of improvement has been effected during recent years, which will be of benefit from a sanitary point of view as well as being a convenience. There is a good public market hall. Slaughtering is done in private premises, though a public abbatoir would be more satisfactory. The Union Workhouse is in the town, but in calculating the death-rates for the town the deaths of persons from the rural and other outside areas have been excluded. There are no other large institutions which affect the statistics. The gross value of the District is £39,950, and the assessable value is £34,533, whilst outstanding loans for sanitary purposes amount to £28,763 12s. 0d. The offices of Surveyor and Sanitary Inspector are combined, and it affords me much pleasure to note how adequately the duties of the latter office are performed."

Statistics.

The natural increase of population during the year was 100. The population is estimated at the middle of 1904 to be 7,350.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	14.1	1.6	.13	.68	.27	2.3	1.2	1.2	107	29.2
Averages for years 1894–1903	16.7	..	..	..	..	..	..	..	119	26.7

The birth-rate was higher than in any of the last ten years, and the death-rate considerably below the average.

Infantile Mortality.—Although the mortality is not high, close examination shows that there is plenty of room for improvement.

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*These figures refer to the Urban District before its recent extension.

Phthisis and Cancer.—The phthisis rate for the year was low, but the average for the last 10 years is the same as that of the whole country; and the cancer rate for the same period is considerably higher than that of the whole country. Dr. Whitaker advocates a sanatorium for consumptives, rather as an educational than as a curative measure.

Zymotic death-rate was due to 1 death from measles, 6 from whooping cough, 4 from diphtheria and 1 from enteric fever. There was one death from anthrax associated with a serious outbreak amongst cattle.

Infectious Disease.—Small-pox.—There were three cases. The first case was removed, along with the whole family, to the small-pox hospital, where two other cases developed. These latter are included in the cases belonging to the Rural District. There was no further spread.

Scarlet Fever.—There were 35 cases, mostly mild with no deaths, and chiefly spread by school attendance. Eighteen were connected with one school and 9 with another. Dr. Whitaker advises hospital isolation where there is overcrowding, or where a business is carried on such as milk-selling or dressmaking. *Diphtheria.*—Eighteen cases were notified. Three were associated with sanitary defects in the houses; one had been in contact with a dog with distemper. No origin is suggested for the remainder. None appear to have been examined bacteriologically. Dr. Whitaker suggests that children who have suffered from diphtheria should have their throats examined for bacilli before returning to school. *Typhoid Fever,* 1 case, origin obscure.

House Accommodation.—Some thirty new dwellings have been built. These to some extent will relieve the congestion amongst the poorer houses, but there is still a need of respectable houses at 3s.6d. a week. New bye-laws have been adopted. Dr. Whitaker particularly calls attention to the byelaw relating to paving of yards, which applies also to old houses.

Drainage and Scavenage.—Main sewers have been laid in the new portions of the district. There are too many privy pits in the town.

Water Supply.—The town's supply has been extended to Hadley, constituting a further drain on the existing storage capacity. There is however some intention of increasing the supply.

Workshops, etc.—A register is kept and there are 70 places registered, including 19 bakehouses. The premises are visited and such attention given as is required. Some of the bakehouses are defective in lighting, ventilation, or general cleanliness.

Slaughter-houses and cowsheds have been efficiently inspected. "A detailed report on cowsheds was presented early in the year, which revealed certain serious defects, and merits careful attention."

Lodging-houses—two only—reasonably satisfactory.

Dr. Whitaker suggests as matters for future action —abolition of objectionable privy pits, paving of courts, improvement of some cowsheds, and matters previously mentioned with regard to water supply.

Nuisance Inspector's Report.—Suggests the use of covered galvanised iron dust bins holding a week's refuse.

The cost of scavenging the privy pits amounts to 8s.9d. each per annum.

All drains are inspected before being covered up.

Water used—Wrekin Reservoir	42,661,000
	6,646,000
	49,307,000
Trade water sold by meter	6,199,000
	43,108,000

or at a rate of 15.75 gallons per head per day exclusive of trade water.

Nine private slaughter-houses—36 visits—clean. Twenty-two cowsheds—fairly clean, several want remodelling.

WELLINGTON (Rural).

Medical Officer of Health	W. T. Hawthorn, M.R.C.S.
Area in acres	33,791
Population at 1901 *Census*	11,773
Number of inhabited houses ,,	2,499
Number of persons per house ,,	4.7

Statistics.

The natural increase of the population during the year was 168.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	13.2	.79	.09	1.3	1.05	1.9	2.5	1.1	107	26.9
Averages for years 1894–1903	15.5*	..	..	..	..	..	..	..	98	38.8

* Uncorrected for Public Institutions.

The zymotic rate was due to 2 deaths from scarlet fever, 3 from whooping cough, 2 from diphtheria, and 2 from diarrhœa.

Infectious Disease.—Two cases of small-pox, 69 of scarlet fever, 20 of diphtheria, 19 of measles, 1 of puerperal fever, and 10 of erysipelas, were notified.

Sewerage and Sewage Disposal.—Attention is called again to the nuisance from Wellington Urban sewage. Dr. Hawthorn also says the Hadley sewage scheme should be no longer delayed.

Water Supply.—Dr. Hawthorn says "I am afraid that the successful opposition to the Oakengates and Dawley Joint Water Bill will delay for an indefinite time the supply of water to the Ketley and Lawley portion of the Wellington Rural Parish." The Wellington Urban mains have been extended to Hadley. Some waters at Rodington and Ellerdine Heath have been found to be contaminated with sewage. Measures have been taken to improve their quality.

Three elementary schools have been closed, viz., Lawley (ringworm, chicken-pox, and scarlet fever); Rodington (diphtheria), Ketley (scarlet fever). Considerable structural alterations and sanitary improvements were suggested to be done at Lawley County School, but they have been only partially carried out and pressure should be brought to bear upon the Local Authority to carry out the whole of the suggested alterations."

Factory and Workshop Act, 1901.—Little or nothing has been done under this Act during the year. There are 22 workshops on the register.

WEM (Urban).

Medical Officer of Health .. JOHN DALLEWY, L.R.C.P., M.R.C.S.

Area in acres	.. ..	450
Population	*at* 1901 *Census*	2,149
Number of inhabited houses	,, ...	453
Number of persons per house	,, ...	4.7

General Character of the District.

> "The town of Wem is a well-built market town in the centre of a large agricultural "district and is made up of a number of good houses, shops, cottages and public buildings, "amongst the latter is a new Market Hall, situated in High Street. The town is well paved "and lighted by gas. The Union Workhouse is situated in the District. There are two "cemeteries, only one of which is used. Drainage and water supply are provided."

Statistics.

The natural increase of the population during the year was 19.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	17.2	.90	.0	1.3	1.3	1.8	.0	2.2	82	27.6
Averages for years 1900-1903	13.5	..	..	..	..	..	..	..	102	26.9

The zymotic rate was due to 2 deaths from whooping cough.

The diminished infantile mortality is attributed to some extent to the better management and feeding of infants, due to the fact that there are nurses trained in midwifery and the management of infants available whenever wanted.

Infectious Disease.—Eight cases of diphtheria, 1 of membranous croup, and 11 of scarlet fever were notified. The scarlet fever cases were the end of an epidemic beginning in September, 1903. Disinfection in each case was carried out under the personal supervision of the inspector.

House accommodation—good; 16 new houses built. Byelaws are in force. Regular inspections are made.

Sewage Disposal.—A scheme is under consideration. No nuisance has arisen during the year.

Excrement Disposal.— Water closets 113 an increase of 12 on last year.
Pan closets 367 ,, 97 ,,
Earth closets 33 a decrease of 11 ,,

Water Supply.—From a well at Preston Brockhurst. The consumption was 13½ million gallons in the year, or 16.7 gallons per head per day.

Factories and Workshops.—There are 47 workshops, including 8 bakehouses, on the register. They have been inspected and found satisfactory.

WEM (Rural).

Medical Officer of Health	JOHN DALLEWY, L.R.C.P., M.R.C.S.
Area in acres	52,001
Population at 1901 *Census*	8,266
Number of inhabited houses ,,	1,840
Number of persons per house ,,	4.5

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	14.0	1.1	.48	.96	.12	1.3	1.8	.60	61	21.7
Averages for years 1894–1903	13.0*	..	..	..	..	..	..	..	86	25.0

*Uncorrected for Public Institutions.

The zymotic rate was due to 1 death from scarlet fever, 5 from whooping cough, 2 from diphtheria, and 1 from diarrhœa.

Of the 11 deaths under one year 3 were due to whooping cough, 1 to tubercular disease, 2 to pneumonia, and 3 to premature birth.

Infectious Disease.—Two cases of small-pox, 2 of diphtheria, 1 of membranous croup, 5 of erysipelas, and 28 of scarlet fever were notified.

The small-pox cases have previously been reported on. Infection was introduced from Dewsbury. The cases were removed to the hospital on Prees Heath, and all precautions with regard to disinfection, house to house visitation, vaccination, were carried out. There was no spread of the disease.

School Closure.—Only one school (Weston) was closed on account of scarlet fever.

Disinfection.—This is now carried out under the direct supervision of the inspector.

House Accommodation.—Dr. Dallewy hopes that a thorough house to house inspection will have been made by the end of this year. Byelaws are under consideration.

Water Supply.—The report of the County Medical Officer has been under consideration, and plans have been discussed but nothing done. The Shawbury well has been protected and a new well sunk at Loppington. When the byelaws are in force it will be possible to see that new wells are properly constructed.

Factories and Workshops.—A register is kept. There are 12 bakehouses, all of which conform to the regulations.

Dairies and cowsheds.—A register is kept. Byelaws are under consideration. Many of the cowsheds are in anything but a sanitary condition.

WENLOCK (Urban).

Medical Officer of Health		M. GEPP, L.R.C.P.E., D.P.H.
Area in acres		22,657
Population	*at* 1901 *Census*	15,866
Number of inhabited houses	,, ...	3,568
Number of persons per house	,, ...	4.4

Physical Features and General Character of the District.

"The District comprises 22,657 acres, being the largest Borough in Area in the country. "This area is of very irregular outline, but is, roughly, some ten miles long in greatest "length, from North to South-West, and has a mean breadth of some four miles, being "narrowest where the Severn, traversing the District from West to East, makes a natural "division, the part lying to the South of the river having three or four times the area of "the northern part, though with less than half the population.

"The District is for the most part a tableland lying at an elevation of from 400 to 600 "feet or more; the Severn forming a deep cutting through this elevated land, its banks "rising very steeply on either side from about 150 feet, O.D., at the water level to the general "height of about 500 feet, O.D. The Central and Eastern part, nearly half the area, lies "upon the coal measures. To the West the formation is the Wenlock and Ludlow beds of "Silurian age, forming a considerable part of the Southern Division, and extending also to a "limited extent across the river into the Northern division. Much of this ground lies in "ridges with intervening valleys at a height of from 600 to 800 feet, O.D. At the Southern "extremity the Old Red Sandstone occurs. The natural drainage is to the Severn, by small "streams falling as a rule steeply into the river within the District, but the Southern part "of the Southern area drains to the South by small streams which meet the Severn some "distance outside the District.

"The District is in large part industrial, the chief industries being coal and iron mining, "iron manufactures, and brick and tile works. There is also a large china factory. These "industries are confined to the Northern area together with a small part of the Southern area "near the river. The greater part of the Southern area is entirely rural and agricultural, and "thinly populated. For purposes of local administration the Borough is divided into four "wards, each having a separate Sanitary Committee acting as the Sanitary Authority. These "wards, with their area, population and general character, are as follows:—

Ward.	Area in Acres.	Estimated Population 1904.	Situation.	General Character.	Death-rate per 1000, 1904.
Madeley	2481	8445	North of Severn ..	Urban and Industrial, Coal and Iron ..	17.3
Broseley	1991	3916	South of Severn ..	Urban and Industrial, Brick and Tile..	17.6
Much Wenlock	8761	2240	South of Severn ..	Agricultural	17.4
Barrow	9064	1299	Both sides of Severn	Agricultural	13.1

"The populations here given are those estimated and corrected by the proportioned distribution of the population of the Madeley Workhouse and by addition of a proportion of the "inmates of the County Asylum, the deaths in these institutions being also distributed in the "several wards. Not much significance should be attached to the death-rates for a single "year. The figures may, however, become of value for comparison as years go by."

Statistics.

The natural increase of the population during the year was 150. The population at the middle of 1904 is estimated at 15,894, and corrected for public institutions, 15,900.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	17.0	.69	.31	1.7	.37	3.0	2.2	1.0	125	26.6
Averages for years 1897–1903	17.4	1.40	..	..	..	..	..	..	111	28.1

The zymotic death-rate was due to 5 deaths from measles, 4 from diphtheria, 1 from enteric fever, and 1 from diarrhœa.

The infantile mortality was much above the average. Of the 53 deaths, 13 were due to bronchitis, and pneumonia, 8 to premature birth, 6 to diarrhœa and enteritis, and 4 to tubercular disease. Many of these deaths might be avoided with better feeding and rearing of infants.

The death-rate from tuberculosis (2.07) was higher than the average for the previous 4 years (1.75).

Infectious Disease.—Twenty-six cases of scarlet fever, 25 of diphtheria, 14 of enteric fever, and 7 of erysipelas were notified. The scarlet fever cases were mostly in the Madeley Ward. The increase in diphtheria was due to a prolonged series of outbreaks at Bourton, where 14 cases occurred between January and the end of October. The school was frequently closed, fresh outbreaks occurring when re-opened. Dr. Gepp, with the County Medical Officer, examined a large number of the children, and took swabs from their throats but with negative results. Only one case however occurred afterwards. Dr. Gepp recommended that the Town Council, as the Education Authority, should arrange for routine medical inspection of the children, but this was not acted upon. The 14 cases of enteric fever were in 8 houses, 7 of which were in the Madeley Ward. In 6 of these 7 outbreaks there was a considerable chance of river water having been drunk and Dr. Gepp has no doubt that polluted river water was responsible for at least four of them. In one house there were 6 cases. Dr. Gepp recommends that the sanitary inspector be given power to arrange for the collection and disposal of typhoid excreta in those cases where it is desirable.

Hospital Isolation—no general hospital but an iron hospital for 8 beds for small-pox in Broseley.

Disinfection—no disinfecting station. Infected houses are now disinfected by the sanitary inspector, with a spray of formic aldehyde.

House Accommodation—in general adequate in amount. Several cases of very serious overcrowding were discovered and dealt with. Many of the houses are old and defective. In the absence of building, systematic inspection with subsequent proceedings are all the more necessary. The necessity for removing soil in contact with house walls where it is causing dampness is insisted upon.

Cleanliness of surroundings.—The systematic inspection is producing improvement, but much yet remains to be done.

Sewerage and Drainage.—House drains are mostly untrapped and imperfect. The outfall of most of the sewers is either directly into the Severn or into streams leading to the Severn. "Improvements both in the sewers themselves and in the disposal of the sewage are very desirable, and will become more so with increase of water carriage."

In Much Wenlock, Broseley and Madeley, there appear to be no great difficulties in the way of disposal of sewage. Ironbridge and Parkfield however present difficult problems.

At Broseley and Bourton there were nuisances from brook pollution, which will require attention. Drainage regulations have been adopted.

Excrement Disposal—mostly by privies with underground vaults, scavenged by occupiers or owners, except in Madeley. Attention is again called to the objectionable drained privies, many of which have still to be dealt with.

Removal and Disposal of House Refuse—by the occupiers, except in Madeley Ward.

Water Supply.—Broseley and Madeley from a well and boring in the Bunter Beds at Harrington ; Much Wenlock, from a deep well in the shale measure of the Wenlock limestone near the town ; Bourton, from a spring forced to a reservoir by a ram and delivered by gravitation.

Common Lodging Houses—Model byelaws have been adopted.

Regulations as to dairies, etc., have been adopted, and byelaws as to slaughter-houses are under consideration.

WHITCHURCH (Urban).

Medical Officer of Health	M. Gepp, L.R.C.P.E., D.P.H.
Area in acres	4,784
Population at 1901 *Census*	5,221
Number of inhabited houses ,, ...	1,129
Number of persons per house .. ,, ...	4.6

General Character of the District.

"The District comprises 4,496 acres, lying at an elevation of from some 270 to some 350 "feet above sea-level, and upon the eastern extremity of the Dee watershed. The sub-soil is "the red marl of the New Red Sandstone. The fall of the ground is from south and east to "west and north-west, and the natural drainage is by small tributary brooks of the Dee, "leaving the District towards the north-west. The town occupies roughly the centre and "higher part of the District, and is compact and old, with extensions of more recent "building along some of the main roads radiating from the town. The surrounding parts of "the District are entirely rural and agricultural, and extend to a distance of between two "and three miles north-east and south-west of the town, but to not more than about a mile "to north-west and south-east. The town is a market and residential town, and the land "around is extensively used for grazing and dairy-farming."

Statistics.

The natural increase of the population was 56. The population in the middle of 1904 is estimated at 5,314, and corrected for public institutions, 5,250 (rates calculated on this population).

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	17.7	.57	.19	.95	.0	2.5	2.5	1.3	105	29.1
Averages for years 1897–1903	15.0	..	..	..	..	..	..	..	104	25.9

The zymotic death-rate was due to 1 death from whooping cough and 2 from diarrhœa.

Infectious Disease.—Twenty-three cases of scarlet fever and 2 of diphtheria were notified. Dr. Gepp considers the scarlet fever cases as the termination of the epidemic which has now lasted 4 years. The cases were probably due to other mild and overlooked ones. Mumps was prevalent towards the end of the year and led to closure of the National and Wesleyan Schools.

Hospital Isolation.—For small-pox an iron hospital for 8 beds, serving this and four other districts, has been provided. There is no accommodation for other diseases.

Disinfection.—Rooms sprayed with formaldehyde by the inspector.

House Accommodation—appears to be adequate in amount. There are many small, old houses in bad repair, and not capable of being made satisfactory. A good many are without through ventilation. There is much scope for work in remedying defective drainage, privies, ashpits, and badly-paved yards. Considerable assistance has been given to the Inspector. Preliminary house inspection is complete, and the house to house inspection in now being carried out systematically. Dr. Gepp looks upon the sanitary work carried out during the year as very satisfactory.

New Houses.—Plans for 49 houses and 1 school were approved during the year; chiefly artisan dwellings of a satisfactory character.

Sewerage and Drainage.—The town is well-sewered and the sewers ventilated by special shafts. New house drains are tested with smoke before being covered. The sewage is disposed of on rich pasture land, about 70 acres in extent. On a recent visit unpurified sewage was passing over the land to a channel communicating with a watercourse. The land at Hadley appears to be capable with due attention of dealing with the present sewage of the town.

Excrement Disposal.—Nearly all new cottages and better class houses have water closets, and conversions from privies to water closets are going forward satisfactorily. The Licensing Magistrates are insisting upon the abolition of all privies on licensed premises and provision of water-closets. In the limits of the public water supply there are 754 houses with water-closets. and 260 houses with privies.

Scavenging.—Refuse is removed by the Council's Contractor and the cost charged to the householder. The use of this arrangement is extending. Special attention is being given to the provision of ashbins and properly covered ashpits.

Water supply—a public system laid on to houses. Works are at Fenn's Bank—shallow wells in drift and a boring. Water from latter was analysed and reported of good quality. 1,024 dwelling houses and 53 other premises are supplied, including 916 water closets and 142 baths. Within the limits of the water supply 25 houses are still supplied from private pumps.

The daily water consumption has increased from 82,500 in 1900, to 120,000 in 1904. Another borehole is to be sunk, and if it yields a plentiful supply, Dr. Gepp suggests that the water from the wells in the drift be kept for emergencies. This water is liable to peaty discolouration, and its amount varies greatly.

Slaughter-houses—7 on register, kept in a satisfactory state.

Common Lodging Houses—4 on register, kept clean.

Dairies, cowsheds, and milkshops—27 on register; inspected periodically and kept in a satisfactory condition.

WHITCHURCH (Rural).

Medical Officer of Health	M. GEPP, L.R.C.P.E., D.P.H.
Area in acres	11,701
Population at 1901 *Census*	1,924
Number of inhabited houses ,, ...	424
Number of persons per house ,, ...	4.5

Physical Features and General Character of the District.

> "The District comprises 11,989 acres of agricultural land lying on the northern border of "the County. The general elevation is from 300 to 400 feet, O.D., the contour being slightly "undulating. The subsoil is the red marl of the New Red Sandstone, with the exception of "a small area in the South-Eastern part, where an outlier of the Lias occurs at Ightfield. The "natural drainage is by small streams to North and South, the water partings between the "Weaver, Dee and Severn systems crossing the District. The District is entirely rural in "character and the population scattered, the small villages of Tilstock, Ash, and Ightfield "comprising the main collections of houses. The land is mainly employed for grazing and "dairy-farming."

Statistics.

The natural increase of the population during the year was 22. The population at the middle of 1904 is estimated at 1,907, and corrected for institutions 1,925.

Period.	Death-rates per 1000 population from								Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis and Pneumonia.	Heart Diseases	Cancer.		
1904	16.1	.0	.52	.52	.0	2.6	6.3	.0	20	26.0
Averages for years 1897–1903	12.7	.73	..	..	..	..	..	..	79	25.9

Infectious Disease.—No case was notified.

Hospital Isolation.—For small-pox there is a joint hospital on Prees Heath, but there is no hospital for the common infectious diseases.

Disinfection.—A spraying apparatus and an alformant lamp have been provided.

House Accommodation.—A house to house inspection is being repeated. Many cottages are old and exhibit defects but none came under notice for closure.

New Buildings.—The Model byelaws are in force.

Excrement Disposal.—Mostly by privies with underground vaults, of faulty construction and bad repair. The owners should be required to keep these privies in effective repair, and in certain cases where they are near houses or wells to substitute earth or pail closets.

Water supply.—The wells to individual houses are mostly objectionable from defective construction and improper situation. "Regulations for the proper construction of and location of new wells should be made and put in force in all Rural Districts."

Ash Magna has been provided by sinking a well in a good situation and placing a pump in a convenient position on the road side.

Dairies and Cowsheds have been looked after by the Sanitary Inspector in accordance with the regulations.